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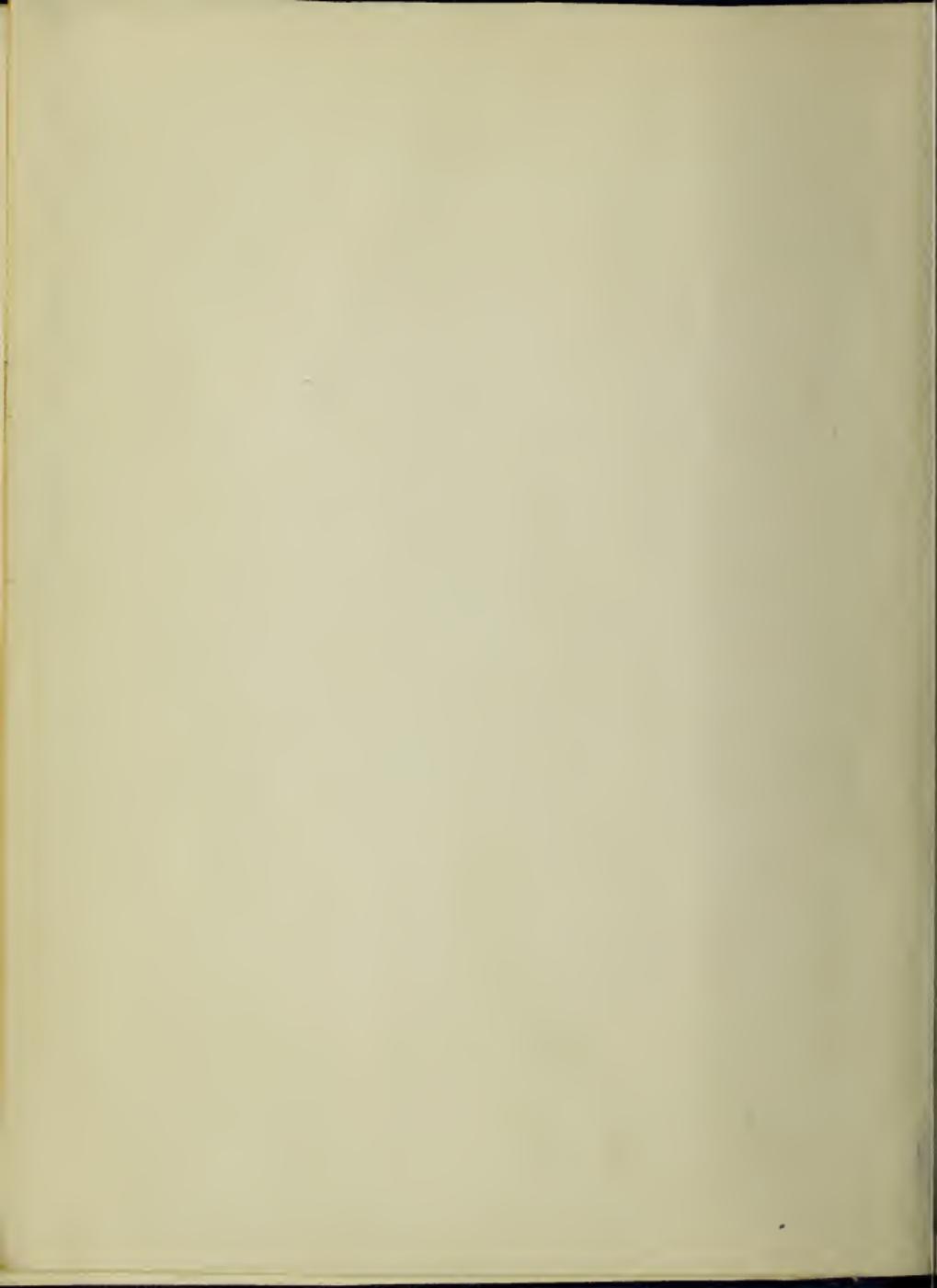
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VOL. IV.

No. 1.

CROFUTT'S TRANS-CONTINENTAL P.R.R.

TOURIST'S GUIDE.

AT WHOLESALE IN NEW YORK, BY

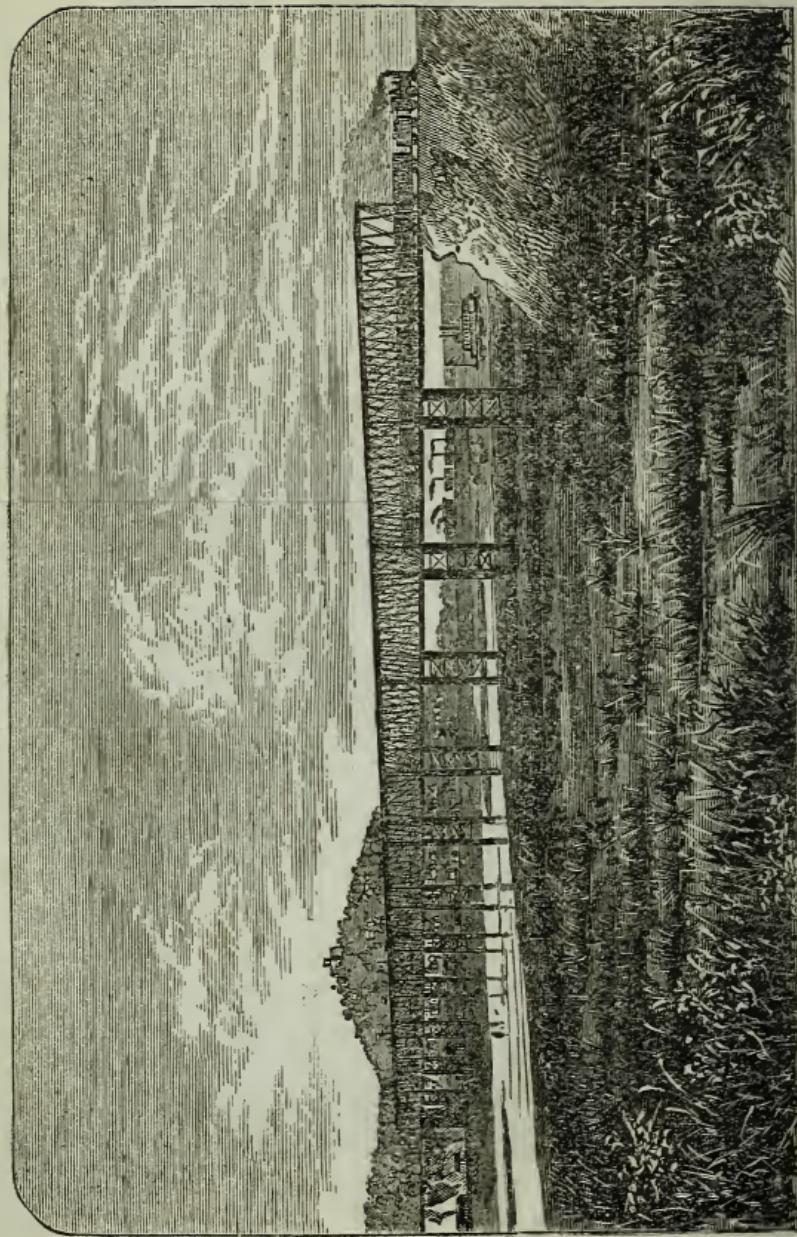
THE AMERICAN NEWS COMPANY.

Sold on the Railroads, at News Stands, and at all the Principal Book Stores

CALIFORNIA, IN
1869

CALIFORNIA, IN
1869

Missouri River Railroad Bridge, between Omaha and Council Bluffs.



CROFUTT'S

TRANS-CONTINENTAL TOURIST'S GUIDE,

CONTAINING A FULL AND AUTHENTIC DESCRIPTION OF OVER

FIVE HUNDRED CITIES, TOWNS, VILLAGES, STATIONS, GOVERNMENT FORTS AND CAMPS, MOUNTAINS, LAKES, RIVERS, SULPHUR, SODA AND HOT SPRINGS, SCENERY, WATERING PLACES, SUMMER RESORTS;

WHERE

To look for and hunt the Buffalo, Antelope, Deer, and other game; Trout Fishing, etc., etc.
In fact, to tell you what is worth seeing—where to see it—where to go—
how to go—and whom to stop with while passing over the

UNION PACIFIC RAILROAD, CENTRAL PACIFIC RAILROAD OF CAL.,

Their Branches and Connections by Stage and Water,

FROM THE ATLANTIC TO THE PACIFIC OCEAN.

ILLUSTRATED.

FOURTH VOL., THIRD ANNUAL REVISE.

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PREFACE TO THE FOURTH VOLUME.

USUALLY, in the preface of a book the public expect to find the author's apology for writing it, or for not having done better, or for errors and blunders that the book may possibly contain. Now, does the merchant tell you his goods are imperfect, the banker that his bank is *insecure*, the railroad company that their bonds are *worthless*, or the fishmonger that his fish are tainted? Then *why* should a poor scribe, who has done his "*level best*," be expected to "go back" on his own production, even though it abound in occidental provincialisms?

Now, if the reader thinks that a *better* or *cheaper* guide can be produced, the field is open and *ample*, the lines of railroads are numerous—"pitch in." As for ourselves, we have no apologies to make—nothing to apologize for. On the contrary, we know our goods are as good as the merchant's, *more reliable* than the banker's, or rather his bonds, and as *fresh* as the mountain trout in his native element.

We believed that a correct, comprehensive, and reliable guide-book of the great Pacific Railroad was needed, there being nothing of the kind in existence, and early in the spring of 1869 we commenced our labors to produce one that should in as few words as possible convey to the reader a general idea of the most important places and objects of interest on the line of the Union and Central Pacific Railroad, and immediately tributary thereto, between the Missouri River and the Pacific Coast. Having passed *ten years* of our life in traversing the far Western country through which this road was built previous to 1869, and having made the GUIDE a specialty ever since, we have had advantages in producing a *reliable* guide that few, if any, have possessed.

We know the usual practice of book-makers is to "*read up*" authorities, *guess* at facts, make a *little* go a *great way*, *lead the text, use large type and thick paper*, so as to make a *big book*, that will be found to contain many *glittering generalities, but no reliable facts*. Our conception of a guide-book is quite the *reverse*. The public does not want a *big book*, but they do want *facts, names, dates, distances, illustrations, and condensed telegrams*, in the *smallest possible space* and for the *least possible money*.

The present volume of the GUIDE contains in addition to *ten* more pages of reading matter, *five* large illustrations, a mining map of Utah, a map of the Yellowstone Country, a map of Salt Lake City, a map of Council Bluffs and Omaha Bridge connections, besides a magnificent steel-plate colored map of the world, prepared expressly for this volume of the GUIDE. The map of the world shows to tourists and travelers the route around the world, with time, distance, and fare. The GUIDE now contains two hundred and twenty-four pages, *fifty* illustrations, and eleven maps.

The reader will observe that we have advanced the retail price of the GUIDE twenty-five cents. This was *absolutely necessary* to cover the additional cost of maps, illustrations, and extra binding. As the Union & Central Pacific Railroad is the longest in the world, most completely equipped, passes over the broadest plains and the *loftiest* mountains, and, in fact, is one of the most stupendous and magnificent enterprises in the world, *why* should it not have a guide-book of corresponding worth? It has been the author's aim to produce one, and we leave our readers to judge whether the present volume approximates the aim desired.

GEO. A. CROFUTT,

138 Nassau Street, New York.

Box 3,435.

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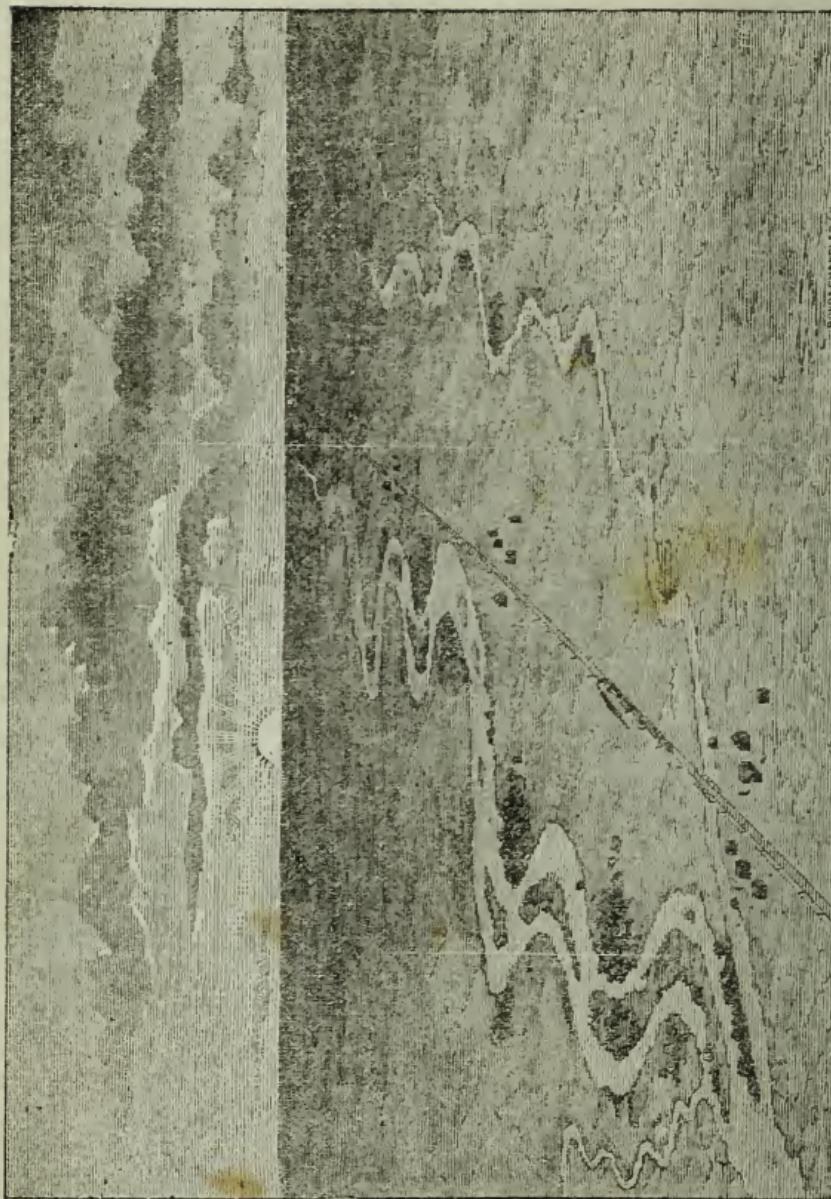
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Bird's Eye View of the Plains, from the crossing of Loup Fork River, 94 miles west of Omaha.



Ocean to Ocean.

WEST TO THE MISSOURI RIVER

A FEW words before we start.

Our Ten Commandments.

1. It is not our province to recommend any particular line east of the Missouri river—each has its own peculiar attractions. By reference to the Time Table map in the front of the GUIDE, the announcement of some of the principal lines, with their special advantages, will be found, and we would advise tourists to read them carefully, then decide for themselves the route they wish to travel before purchasing tickets.

2. Be particular to choose such routes as will enable you to visit the cities, towns, and objects of interest that you desire to, without annoyance or needless expense. See Time Table map for fare, distance, etc. etc.

3. Never purchase your ticket from a stranger in the street, but over the counter of some responsible company. When purchasing tickets, look well to the date, and notice that each ticket is stamped at the time you receive them. Then turn to page 224 of the GUIDE and make a memorandum of the name of the company issuing the ticket, by what route, and the number and *class* of the ticket. In case of loss, make the fact known at the office of the company, showing the memorandum as above described; and steps can be taken immediately to recover the ticket if it was

lost or stolen, or to prevent its being used by any one else. By attention to such slight and apparently unimportant matters as these, travelers may escape such swindles as are too likely to be practiced upon them, and avoid much possible loss and inconvenience.

4. Before starting out, provide yourself with at least one-third more money than your most liberal estimate would seem to require.

5. Endeavor to be at the depot at least fifteen minutes before the train leaves, to avoid a rush.

6. You will need to show your ticket to the baggage man when you ask him to check your baggage, then see that it is properly checked, and make a memorandum of the number of the check on the same page of the GUIDE with your ticket, when you will need to give it no further attention until you get to the place to which it is checked, when you will need to look after it.

7. Persons who accompany the conductor through the cars, calling for baggage to be delivered at the hotels or other places, are generally reliable, but the passenger, if in doubt, should enquire of the conductor, and then be careful to compare the number of the ticket received from the agent in exchange for his check, to be sure that they are alike.

8. Do not seek to attract attention—remember only boors are intrusive and boisterous.

9. "Please" and "thanks" are towers of strength. Do not let the servants excel you in patience and politeness.

10. *And finally*—Do not judge of the people you meet by their clothes, or think you are going West to find fools—as a millionaire may be in buckskin and a college graduate in rags.

AROUND THE WORLD.

Passengers can now procure tickets for a trip around the world. The route will be found on the large colored map of the world in the back part of the GUIDE. The price of tickets is now \$1,005, *via* China and Japan, and \$985 *via* Australia and the Oriental line of steamships. The journey can be broken at any point of interest *en route* and resumed at pleasure. Only a short time has elapsed since a journey to China and India was only one remove from leaving the world altogether. A traveler or business man who, a few years ago, went to Hong Kong or Calcutta, made his will and arranged his affairs with a certain knowledge that at least a year or two of his life was required, and the possibilities were against his returning even then. To-day he packs his portmanteau for a run around the globe, transacts important business, and is back in his office in New York, San Francisco, or London in ninety days, after having enjoyed an agreeable tour, in which he is always in communication with the chief centers of business by telegraph and steam post routes.

Not only has sea navigation been improved by the advances in naval architecture, and the greater perfection in ships' material, construction, and motive power, but the vast distances of land travel have been decidedly shortened both in space and time by the development of land transportation. Mountains and valleys have been brought to a proper grade for immense lines of railway on both continents. The difficulties overcome and the energy and

enterprise exhibited by the building of more than 5,000 miles of English railway in India, connecting the principal cities of that great peninsula, and the completion of the Suez Canal, have only been equaled by the construction of the great Union and Central Pacific Railroad across our continent, which brings the city of San Francisco on the Pacific coast within less than a week's comfortable journey of the Atlantic sea-ports of New York, Philadelphia, and Boston, which heretofore took months to accomplish.

Passengers from the Eastern States bound for the *Pacific Coast* can have their choice of four great American "Trunk Lines," from the Atlantic seaboard, which connect with the Grand Trans-Continental Railroad at Council Bluffs or Omaha. Sleeping cars are run on all through trains—most luxuriant palaces. The charges are *extra*, or about \$3 per day—24 hours. Only first-class passengers can procure berths in the sleeping cars. These four lines are the "New York Central and Hudson River Railroad," the "Erie Railroad" line, the "Pennsylvania Central," and the "Baltimore and Ohio Railroad."

The railroad connections by these lines are almost innumerable, extending to almost every city, town, and village in nearly every State and Territory in the United States; the regular through trains of either line make close and sure connections with the Pacific road, while the fares are the same.

From

BOSTON,

Passengers can go by "all rail" *via* either Albany direct, or *via* New York City, or they can take the steamships on Long Island Sound, of which there are three first-class lines, comprising some of the finest boats in the world.

From

NEW YORK

Passengers who desire to visit NIAGARA, whose thundering cataracts far surpass

all other waterfalls in the known world, and also view the great Suspension Bridge over Niagara river—which undoubtedly is one of the finest structures of its kind in this country—can have choice of two trunk lines.

The New York Central and Hudson River line passes up the glorious old Hudson, the magnificent river upon the bosom of which Fulton launched his “experiment,” the *first steamboat ever constructed*. The road is built almost upon the river brink, upon the eastern bank, which slopes back in irregular terraces on both sides, presenting from the car window in summer—with its groves, parks, gardens, orchards, and alternate rich fields, with here and there peeping out from beneath the trees the magnificent country villa of the nabob, the substantial residence of the wealthy merchant, or the neat and tasteful cottage of the well-to-do farmer—one of the finest panoramic views in the whole country. This line passes through Central New York—the garden of the State—*via* Albany, Rochester, and Buffalo.

The Western direct connections of the “New York Central” are at Suspension Bridge (Niagara)—the “Great Western and Michigan Central,” *via* Detroit; at Buffalo—the “Lake Shore and Michigan Southern,” *via* Dunkirk and Cleveland.

The Erie Railway line traverses the southern portion of the State of New York, *via* Binghamton, Corning, and Buffalo. The track of the “Erie” is the *broadest gauge* in the country; the cars are very wide and commodious. This route affords the traveler a view, while crossing and recrossing the Delaware, of scenery and engineering skill at once grand, majestic, and wonderful. The direct Western connection of the “Erie” is the “Lake Shore and Michigan Southern.”

The Pennsylvania Central line receives passengers in New York and

PHILADELPHIA,

and conveys them the entire length of the great State of Pennsylvania, *via* Harrisburg—the capital of the State—

to Pittsburg, the most extensive iron-manufacturing city in the United States. The landscape on this line, and especially while passing along the beautiful valley of the Susquehanna, the charming blue Juniata and over the Alleghanies, presents scenery incomparably grand, while the fearful chasms and wonderful engineering skill noticeable at many points are second only to that displayed at “Cape Horn” on the Sierra Nevada mountains.

At Pittsburg, the “Central” connects with the Pittsburg, Fort Wayne, and Chicago Railroad—one of the best in this country—and with many other roads running in every direction. From

BALTIMORE

the “Baltimore and Ohio R. R.” affords passengers an opportunity to visit the

CAPITOL AT WASHINGTON,

and thence, *via* Harper’s Ferry, “over the mountains” to Wheeling. It is said by some travelers that the scenery by this line is unsurpassed by any on the continent.

From

CINCINNATI

passengers can have choice of several first-class competing lines, *via* either Chicago or St. Louis, or *via* the “Burlington Route”—direct, *via* Burlington, Iowa. From

CHICAGO

there are three lines—for special advantages, we must again refer to our Time Table map—the “Chicago and Northwestern R. R.,” *via* Clinton and Cedar Rapids; the “Chicago, Rock Island, and Pacific R. R.,” *via* Rock Island, Davenport, and Des Moines; and the “Burlington Route,” *via* “Chicago, Burlington, and Quincy R. R.,” and the “Burlington and Missouri River R. R.” From

ST. LOUIS

Passengers can take either the “North Missouri” or the “Missouri Pacific R. R.,” *via* Kansas City, and the “Kansas City, St. Joseph, and Council Bluffs R. R.,” *via* St. Joseph, Mo.

We have only enumerated the principal lines centering at Council Bluffs, opposite the City of Omaha, the eastern terminus of the Union Pacific Railroad (so claimed at present).

COUNCIL BLUFFS

is situated in the western portion of the State of Iowa, about three miles from the Missouri river, at the foot of the bluffs. It is the county-seat of Pottawattomie county, and contained, according to the census of 1870, a population of 10,020. It is four miles distant from Omaha, Nebraska, with which city it is connected by steam and horse railroads, as well as by ferry.

Council Bluffs is one of the oldest towns in Western Iowa. As early as 1846, it was known as a Mormon settlement, by the name of Kanesville, which it retained until 1853, when the Legislature granted a charter designating the place as the City of Council Bluffs. The explorers, Lewis and Clark, held a council with the Indians here in 1804, and named it Council Bluffs.

The railroad interests are almost identical with those of her "twin sister," Omaha, with which city she has been recently connected by the railroad bridge over the Missouri river.

Council Bluffs includes within her corporate limits 24 square miles, extending north and south four miles, east and west six. The buildings are good; the town presents a neat, tasty, and, withal, a *lively* appearance. Streetcars traverse the principal streets. Churches and schools are numerous—the latter comprise one seminary for young ladies, one high school, eight private schools, and fourteen district or free schools. The State Institute for the Deaf and Dumb has been located near the city, the buildings for which are about completed. Hotels are numerous, but we always stop at the Ogden House.

There are over 200 business houses in the city, representing all branches. Their trade extends westward, up and

down the river, and over a large portion of the country eastward.

There are two daily newspapers, the *Times*, Democratic, and the *Nonpareil*, Republican. The *Post* is a German weekly, and the *Oddfellow's Magazine* monthly. These papers are all zealous advocates of home interests.

The surrounding country is rich in the chief wealth of a nation—agriculture. No better farming land is found than Western Iowa possesses, and when this vast area shall become closely settled, Council Bluffs will be the central point of one of the richest farming sections of the Union.

Leaving Council Bluffs, the train speeds across the low, broad bottom towards.

THE MISSOURI RIVER BRIDGE.

The construction of this bridge was first authorized by Congress on the 25th of July, 1866, but very little was done until March, 1868, when work commenced, and was continued from that time until July 26, 1869, when it was suspended. Nothing more was done until April, 1870, when T. E. Sickels, chief engineer of the Union Pacific Railroad, decided to push the bridge forward to completion. A second contract was made with the American Bridge Company of Chicago, and work again commenced. The Missouri Bridge Company was reorganized and composed of some of the heaviest stockholders in the Union Pacific Railroad Company, and on the 24th of February, 1871, Congress passed a special act authorizing the Union Pacific Railroad Company to construct this bridge across the Missouri river, and to issue bonds to the amount of \$2,500,000.

The county of Douglas, Nebraska, voted, under certain conditions, aid in county bonds to the amount of \$250,000 (which have been delivered). Also, Pottawattomie county, Iowa, voted, under certain conditions, aid to the amount of \$205,000 (which, we understand, have not been delivered).

This bridge is a notable structure (see

frontispiece) one-half mile in length—with the approaches, over one mile.

This bridge is located a little below the old depot, and opposite that part of the city of Omaha known as "Train-town."

The irrepressible George Francis—"our next President of America"—purchased, some ten years ago, for a nominal sum, several hundred acres of land, which, it is said, is worth to-day over a million of dollars. If George Francis Train is mad, there is certainly *some* "method in his madness."

The bridge is known as a "Post's Patent." The hollow iron columns are 22 in number, two forming a pier. These columns are made of wrought iron one and three-fourths inches in thickness, $8\frac{1}{2}$ feet in diameter, 10 feet long, weight 8 tons each. They are riveted together air-tight and sunk to the bed-rock of the river, in one case 82 feet.

After these columns are seated on the rock foundation they are filled up 20 feet with stone concrete, and from the concrete to the bridge "seat" they are filled with regular masonry. From high-water mark to the bridge "seat," these columns measure fifty feet. The eleven spans are 250 feet in length, making the iron part between abutments 2,750 feet; the bridge has a single track, with room for passengers and street-cars.

These columns were cast in Chicago, and delivered in the shape of enormous rings, ten feet in length. When they were being placed in position, the workmen would take two or more rings, join them together, place the column where it was to be sunk, cover the top with an air-lock, then force the water from the column by hydraulic pressure, ranging from ten to thirty-five pounds. The workmen descend the columns by means of rope-ladders, and fill sand-buckets, which are hoisted through the air-lock by a pony-engine. The sand is then excavated about two feet below the bottom of the column; the men come out through the air-lock; a leverage,

from 100 to 300 tons, is applied; the hydraulic pressure is removed; and the column sinks, from three inches to two and one-half feet—in one instance, the column steadily sank down seventeen feet. Whenever the column sinks, the sand fills in from ten to thirty feet—in one instance, forty feet. This has to be excavated before another sinking of a few inches can take place, making altogether a slow and tedious process.

While crossing this bridge into the State of Nebraska, let us take a glance at this

OUR WESTERN COUNTRY.

It can no longer be spoken of as the "far West," as that land is generally conceded to lie nearer sundown, or at least beyond the Rocky Mountains. Nebraska, so lately opened up to the world, and so lately considered one portion of the "wild West," forms now one of our central States. It possesses a genial climate, good water, and a fair supply of timber, and the broad prairies of the eastern portion of the State are dotted with well-cultivated and well-stocked farms that greet the eye of the traveler in every direction, while on all sides may be seen the evidences of thrift and comfort found only in a farming region. The winters are mild, considering the latitude; the summers not oppressively warm; and there is an absence of many diseases that render our lower lands so peculiarly unhealthy. The emigrant who wishes a home where he can till the soil, where his labors will be rewarded with abundant harvests, will find this State to satisfy his aspirations fully. Wheat, oats, and corn yield luxuriant returns to the husbandman, and all kinds of fruits and garden vegetables incidental to this latitude can be grown in profusion. Rarely will the traveler find a more magnificent scene, and more suggestive of real wealth and prosperity, than can be seen on these broad prairies, when the fields of yellow grain or waving corn are waiting for the harvesters. Miles and miles away stretch the undu-

lating plains, far, aye, farther than the eye can see. In rapid succession we pass the better residence of the "old settler," with his immense fields of grain and herds of stock, on beyond the boundaries of earlier settlements; and now we reach the rude cabin of the hardy settler who has located still "farther west," and here, within a few years, will arise a home as attractive as those we have left behind, surrounded with orchards, gardens, and flocks. Here, too, will the snug school-house be found, and the white church, with its tapering spire, pointing the people to the abode of Him who hath so richly blessed His children. There is beauty on every hand. The wild prairie flowers, of a thousand different hues and varieties, greet the eye at every step; and the tiniest foot that ever trod Broadway could scarce reach the ground without crushing the life from out some of these emblems of purity. And when the cooling showers have moistened the thirsty earth, or when the morning dew is spangling flowers, vine, and tree, there is more of quiet, graceful beauty—more of that spirit floating around us which renders man more human and woman nearer what we desire her to be—than can be found within the walls of any city, despite its beautiful gardens and public promenades. Long will the memory of these scenes remain impressed on the mind of the traveler who admires nature in all her phases. California may and does possess grand and magnificent mountain scenery, unsurpassed by any in the world, together with broad and fertile plains; Idaho, Montana, Nevada, and Colorado are grand and beautiful in their rugged strength, but in none of these can be found scenes of quiet, graceful beauty which, by any stretch of imagination, can be ranked as equal to those found almost anywhere on the prairies of this, our Western country. Nowhere else have we seen vegetation clothed in such brilliant coloring. And when the face of our warmer lands is bare, parched, and brown, the transition from thence

to these green plains unfolds to us almost a new phase of existence.

For a long time, Iowa, Indiana, Michigan, and Ohio were supposed to contain the wheat-growing soil of the Union, and they became known as the "granaries of the States." But those "granaries" have pushed themselves a little "further west," if we may be allowed to use the expression. Nebraska has retained a portion of the name; California and Oregon took the remainder. Nebraska annually produces a large surplus of wheat and corn, which finds its way eastward. Properly speaking, it is a wheat country, and destined to wield a powerful influence in the grain market, when her lands shall have been settled and cultivated. It is less susceptible to the effects of drought than any of her adjoining sisters. Neither have extremes of wet weather, as yet, ever caused any very serious loss. With the advantages possessed by this State; with a water-front of several hundred miles on a stream navigable the greater portion of the year; with the grandest railroad on the continent traversing her entire breadth, and terminating with her border, with all the resources of commerce at her command; with unlimited water-power for manufactures, it will be strange, indeed, if Nebraska does not take a high rank in the great family of States.

"WESTWARD THE STAR OF EMPIRE TAKES ITS WAY,"

From our present standpoint, this quotation must apply to

THE FAR WEST.

How often that sentence has been quoted those who are the *most* familiar with the growth of our Western possessions can best remember. So often has it been uttered, that it has passed into a household word, and endowed its innocent and unsuspecting author with an earthly immortality. From the boy hood days of that reliable and highly

respectable individual, the "Oldest Inhabitant" of any specified locality in the "Eastern States," it has formed the heading—in large or small caps—of nearly every newspaper notice which chronicled the fact that some family had packed their household goods and gods (mostly goods) and left their native land of woods, rocks, churches, and school-houses to seek a home among the then mythical prairies of the "Far West." But oh! in later years how that quotation ran across the double columns of these same papers in all conceivable forms of type, when the fact was chronicled that one of our Western corn-fed sisters was admitted to the Union as a portion of the United States!

Well, but where was your "Far West" then where people went when they had "Westward ho!" on the brain? asks one, who speaks of the West as that part of our country which lies between the summit of the Rocky Mountains and the waters of the Pacific Ocean? Well, the "Far West" of that time, that almost mythical region, was what are now those vast and fertile prairies which lie south and west of the great lakes, and east of and bordering on the Mississippi river. All west of that was a blank; the home of the savage, the wild beast, and all unclean things—at least so said the "Oldest Inhabitant."

But our hardy pioneers passed the Rubicon, and the West receded before their advance. Missouri was peopled, and the Father of Waters became the great natural highway of a mighty commerce, sustained in equal parts by the populous and newly-made States—lying on both its banks—which had been carved out of the "Far West" by the hands of the hardy pioneers.

Ohio, Indiana, Illinois, Michigan, Minnesota, Missouri, and Iowa had joined the sisterhood, and yet the tide of immigration stayed not. It traversed the trackless desert, scaled the Rocky Mountains, and secured a foothold in Oregon. But it passed not by unheeding the rich valleys and broad prairies of Nebraska,

which retained what became, with subsequent additions, a permanent and thriving population. Then the yellow gold, which had been found in California, drew the tide of emigration thitherward, and in a few years our golden-haired sister was added to the number comprising the States of the Union.

Oregon and Nevada on the western slope, Kansas and Nebraska on the east, followed, and still we have Dakota, Idaho, Montana, Washington, Utah, Colorado, Arizona, and New Mexico Territories, to say nothing of Alaska, waiting the time when they too shall be competent to add their names to the roll of honor and enter the Union on an equality with the others. Thus we see that the "Far West" of to-day has become far removed from the West of thirty—or even ten—years ago, and what is now the central portion of our commonwealth was then the *far, far West*.

HOW CHANGED! ALL IS CHANGED!

To-day the foam-crested waves of the Pacific bear on their bosoms a mighty and steadily increasing commerce. China, Japan, and the Orient are at our doors. A rich, powerful, and populous section, comprising three States, has arisen, where but a few years since the Jesuit missions among the savages were the only marks of civilization. And all over the once unknown waste, amid the cosy valley and on the broad plains, are the scattered homes of the hardy and brave pioneer husbandmen. While the bleak mountains, once the home of the savage and wild beast, the deep gulches and gloomy canyons, are illuminated with the perpetual fires of the "smelting furnaces," the ring of pick, shovel, and drill, the clatter of stamps and booming of blasts, all tell of the presence of the miner, and the streams of wealth which are daily flowing into our national coffers are rapidly increasing, for, just in proportion as the individual becomes enriched, so does his country partake of his fortune.

BRIEF HISTORY.

It is only a few short years ago since the Government of the United States, in order to better protect her citizens that had spread over the wild expanse of country between the Missouri River and the Pacific Ocean, and from the Mexican on the South, and the British Possessions on the North, established a system of military forts and posts, extending north and south, east and west, over this territory. Though productive of much good, they were not sufficient to meet the requirements of the times, and in many places settlers and miners were murdered with impunity by the Indians. Wise men regarded rapid emigration as the only safe plan of security, and this could not be accomplished without swifter, surer, and cheaper means of transporting the poor, who would gladly avail themselves of the opportunity to possess a free farm, or reach the gold fields of the West. The railroad and telegraph—twin sisters of civilization—were talked of; but old-fogies shook their heads in the plentitude of their wisdom, and piously crossed themselves and clasped with a firmer grasp their money-bags, when Young America dared broach the subject. "No, sir, no; the thing is totally absurd; impracticable, sir; don't talk more of such nonsense to me," they would reply as they turned away to go to their church or to their stock gambling in Wall street—probably the latter occupation. But Young America did not give up to this theory or accept the dictum of money-bags. And as the counties of the West grew and expanded under the mighty tide of immigration, they clamored for a safe and speedy transit between them and their "fatherland." Government, with its usual red-tape delays and scientific way of how *not to do it*, heeded not the appeal, until the red hand of war, of rebellion, pointed out to it the stern necessity of securing, by iron bands, the fair dominions of the West from foreign or domestic foe.

Notwithstanding that Benton, Clark, and others had long urged the necessity and practicability of the scheme, the wealth and power which would accrue to the country from its realization, the idea found favor with but few of our wise legislators until they awoke to the knowledge that even the loyal State of California was in danger of being abandoned by those in command, and turned over to the insurgents; that a rebel force was forming in Texas with the Pacific coast as its objective point; that foreign and domestic machinations threatened the dismemberment of the Union into three divisions; not until all this stared them in the face could our national Solons see the practicability of the scheme so earnestly and ably advocated by Sargent of California and his able coadjutors in the noble work. To this threatened invasion of our Western possessions, what had government to offer for successful defense? Nothing but a few half-finished and ill-y-manned forts around the bay and the untaught militia of the Pacific coast. Under this pressure was the charter granted, and it may truly be said that the road was inaugurated by the grandest carnival of blood the world has ever known; for, without the pressure of the rebellion, the road would probably be in embryo to-day. Although the American people have been keenly alive to the importance of a speedy transit between the two extremes of the continent ever since the discovery of gold on the Pacific slope, up to this time the old vague rumors of barren deserts, dark, deep, and gloomy gorges, tremendous, rugged, snow-clad mountains, and the wild savagery, made the idea seem preposterous. Even the reports of the emigrants could not convince them to the contrary; nor yet the reports of the Mormons, who marked and mapped a feasible route to Salt Lake City. And it is worthy of remark that for over 700 miles the road follows very closely their survey.

Practical, earnest men, disabused the minds of the people regarding the impracticability of the scheme, after the road had become a national necessity—a question of life and unity of the Republic. The great work has been accomplished, and to-day the locomotive whirls its long train, filled with emigrants or pleasure seekers, through that region, which, only a few years ago, was but a dim, undefined, mythical land, composed of chaos and the last faint efforts of nature to render that chaotic state still more inhospitable and uninviting. How great the change from the ideal to the real. For five hundred miles after leaving Omaha, that vague "Great American Desert" proves to be as beautiful and fertile a succession of valleys as can be found elsewhere, under like geographical positions. Great is the change indeed; still greater the changes through which our country has passed during the period from the commencement to the ending of our proudest national civil record, save one. We live in a fast age; the breeze of to-day was the tornado of 50 years ago. Nature has called upon her children to rise and prepare for the changes constantly occurring, and nobly have they responded to her summons. The dust of our ancestors has reposed for ages, in quiet, in their loved church yards, unmoved by the rush and whirl of the present age, which seems but a preparatory lesson to their children, teaching them to hasten their pace, that at the final gathering all may arrive at the same time.

But we will cease speculating, and resume the consideration of the history of the continental railroad, and also the attempts in that direction which had been made by other parties, in another portion of our country. We find that Missouri, through her able and liberal Legislature, was the first State to move in the construction of a national or continental railroad. The Legislature of that State granted a charter, under which was incorporated the Missouri and Pacific Railroad Co., who were to build a

road, diverging at Franklin, southwest, via Rollo, Springfield, Neosho (the Galena district), and along the line of the thirty-sixth parallel to Santa Fe, New Mexico. From Santa Fe to San Francisco, preliminary surveys were made, and had it not been for the rebellion this road would undoubtedly have been completed long ere this; good authorities placing the limit at 1864. The cause which compelled the construction of the Central road, destroyed the Southern. Passing as it did, mostly through southern hostile territory, government could not aid or protect it in its construction, and consequently the work was suspended. With returning peace, and a settled condition of society it is but reasonable to suppose that the work will ultimately be pushed to completion. It may be well to mention here, that the States of Arkansas and Tennessee by their Legislatures, proposed to assist the work, by constructing a railroad from Little Rock, to connect with the M. & P. R. R., somewhere between the ninety-eighth and one hundred and second degree of longitude, and for that purpose a charter was granted.

The evident, and we might add, the imperative necessity of connecting the east and west, and the intervening territories, encouraged the corporators of the great trans-continental line to apply to the Government for aid. Many measures were devised and laid before the people, but the supposed impregnability of the Rocky Mountains, and other natural obstacles to be encountered, caused a hesitancy even then on the part of our energetic people to commence the great work. To attempt to lay the iron rail through vast tracts of unknown country, inhabited by wandering, hostile tribes of savage nomads; to scale the snow-clad peaks of the Rocky Mountains with the fiery locomotive, seemed an undertaking too vast for even the American people to accomplish. But the *absolute IMPORTANCE*, the *urgent NECESSITY* of such a work, overcame all objections to the scheme,

and in 1862 Congress passed an act, which was approved by President Lincoln on the first day of July of that year, by which the Government sanctioned the undertaking, and promised the use of its credit to aid in its speedy completion. The act was entitled "An act to aid in the construction of a railroad and telegraph line from the Missouri river to the Pacific ocean, and to secure to the Government the use of the same for postal, military, and other purposes."

LAND GRANT.

The Government grant of lands to the great national highway, as amended, was every alternate section of land for 20 miles on each side of the road, or 20 sections, equaling 12,800 acres for each mile of the road. By the Companies' table, the road, as completed, is 1,776 $\frac{18}{100}$ miles long from Omaha to Sacramento. This would give the Companies 22,735,104 acres, divided as follows: Union Pacific, 13,295,104; Central Pacific, 9,440,000.

The "junction" of the Union and Central companies is known as "Union Junction"—six miles west from where the connection is made at Ogden, Utah.

In addition to the grant of lands and right of way, Government agreed to issue its thirty year six per cent. bonds in aid of the work, graduated as follows: For the plains portion of the road, \$16,000 per mile; for the next most difficult portion, \$32,000 per mile; for the mountainous portion, \$48,000 per mile.

The Union Pacific Railroad Co. built 525 $\frac{18}{100}$ miles, for which they received \$16,000 per mile; 363 $\frac{602}{1000}$ miles at \$32,000 per mile; 150 miles at \$48,000 per mile, making a total of \$27,236,512.

The Central Pacific Railroad Co. built 7 $\frac{18}{100}$ miles at \$16,000 per mile; 580 $\frac{32}{100}$ miles at \$32,000 per mile; 150 miles at \$48,000 per mile, making a total of \$25,885,120.

The total subsidies for both roads amount to \$53,121,632. Government also guaranteed the interest on the Companies' first mortgage bonds to an equal amount.

COST OF CONSTRUCTION, MATERIAL, ETC.

In the construction of the whole line there were used about 300,000 tons of iron rails; 1,700,000 fish plates; 6,800,000 bolts; 6,126,375 cross-ties; 23,505,500 spikes.

Besides this, there was used an incalculable amount of sawed lumber boards for building, timber for trestles, bridges, etc. Estimating the cost of the road with equipments complete by that of other first-class roads (\$105,000 per mile), and we have the sum of \$186,498,900 as the approximate cost of the work.

ROLLING STOCK.

To operate this road, the two companies have now in use: Locomotives, 333; first-class passenger cars, 156; palace sleeping cars, 43; emigrant and second-class cars, 76; mail, express, baggage, and caboose cars, 179; box and flat cars, 5,378; hand cars, 421; dump and section cars, 430; stock, coal, and iron cars, 725; fruit cars, 32; bridge, derrick, wrecking, rubble, powder, water, and cook cars, 89; president's, pay and officers' cars, 7; total, 7,769.

We have not had much to say in the GUIDE heretofore in regard to the

IMPORTANCE OF THE ROAD
to the American people, the Government, or the world at large, simply from the fact that it seemed to us anything we might say would be *entirely superfluous*, as the incalculable advantages to all could admit of *no possible doubt*. We were content in calling attention to the vast extent of rich mineral, agricultural and grazing country opened up—a country which had heretofore been considered *worthless*. We pointed out, step by step, the most important features, productions, and advantages of each section traversed by the road; stated that the East and West were now connected by a *short and quick route*, over which the vast trade of China, Japan, and the Orient could flow in its transit Eastward; and, finally, that its importance to the miner, agriculturist, stock-raiser, the Government, and the world at large, *few, if any, could estimate.*

LOOK BACK A LITTLE.

To those who are always growling about railroads, ignore history, and appear to think that these railroad companies are great debtors to the Government, we would kindly request to look back a little.

March 18, 1862.—Before the Pacific Railroad was chartered, while the country was in the midst of a civil war, at a time, too, when foreign war was most imminent—the Trent affair shows how imminent—and the country was straining every nerve for national existence and capital, *unusually cautious*. Mr. Campbell, of Penn., Chairman of the House Committee on the "Pacific Railroad" [See *Congressional Globe*, page 1712, session 2d, 37th Congress], said :

"The road is a necessity to the government. It is the government that is asking individual capitalists to build the road. Gentlemen are under the impression that it is a very great benefit to these stockholders to aid them to an extent of about half the capital required. I beg leave to call the attention of gentlemen to the fact that it is the government which is under the necessity to construct the road. If the capitalists of the country are willing to come forward and advance half the amount necessary for this great enterprise, the government is doing little in aiding the Company to the extent of the other half by way of a loan." Again (page 1911)—"It is not supposed that in the first instance the Company will reimburse the interest to the government; it will reimburse it in transportation." Mr. White said: "I undertake to say that not a cent of these advances will ever be repaid, nor do I think it desirable that they should be, as this road is to be the highway of the nation."

In the Senate [see *Congressional Globe*, page 2257, 3d vol., 2d session, 37th Congress], Hon. Henry Wilson, from Mass., said:

"I give no grudging vote in giving away either money or land. I would sink \$100,000,000 to build the road, and do it most cheerfully, and think I had done a great thing for my country. What are \$75 or \$100,000,000 in opening a railroad across the central regions of this continent, that shall connect the people of the Atlantic and Pacific, and bind us together? Nothing. As to the lands, I don't grudge them."

The report of Senator Stewart, from the Committee on the Pacific Railroad to the Senate of the U. S., in February, 1871, will afford one illustration of the advantages of the road to the Government up to that time. He says:

The cost of the overland service for the whole period, from the acquisition of our Pacific coast possessions down to the completion of the Pacific Railread, was over \$8,000,000 per annum, and this cost was constantly increasing.

"The cost, since the completion of the road, is the annual interest" [which includes all the branches—ED.] "\$3,897,129—to which must be added one-half the charges for services performed by the Company, about \$1,163,138 per annum, making a total annual expenditure of about \$5,000,000, and showing a saving of at least \$3,000,000 per annum.

"This calculation is upon the basis that none of the interest will ever be repaid to the United States except what is paid by the services, and that the excess of interest advanced over freights is a total loss.

"In this statement no account is made of the constant destruction of life and private property by Indians, of the large amounts of money paid by the Secretary of the Treasury as indemnity for damages by Indians to property in the government service on the plains under the act of March 3, 1849, of the increased mail facilities, of the prevention of Indian wars, of the increased value of public lands, of the development of the coal and iron mines of Wyoming, and the gold and silver mines of Nevada and Utah, of the value of the road in a commercial point of view in utilizing the interior of the continent, and in facilitating trade and commerce with the Pacific coast and Asia; and, above all, in cementing the Union, and furnishing security in the event of foreign wars."

Some of the advantages of the Pacific Railroad to the Government, and, consequently, to the country at large, are made manifest in the above report.

By charter, the Government exacted that the company should complete the road by 1876; but by almost superhuman exertion it was completed May 10, 1869—and the Government will have the benefit of the road *seven years* before the company were compelled to finish it. Now, taking no account of the millions the Government saved during the building of the road—at their own figures—and the saving during the seven years previous to 1876 will net the Government \$21,000,000, besides paying the interest on the whole amount of bonds.

It cost the Government, before the completion of the Pacific Railroad, according to Mr. Stewart, "over \$8,000,000 per annum, and this cost was constantly increasing." How fast was this increase? Could it be less than 6 per cent. per an-

num? We think not! Then, by taking 6 per cent. as a basis for calculation, the Government will have saved, previous to 1876, in the seven years that the road was completed *before* the companies were required to complete it—and after the Government pay every dollar of interest on *their own bonds*, issued to the companies to aid the construction of the road—THIRTY MILLIONS OF DOLLARS.

But, says the *Growler*, “What about the snow blockade?” As we have recently given our views at length in our *Western World*, we will simply say the present winter has been one of unusual and *unheard of severity*.

The company took, as it was thought by everybody at the time, ample precautions to protect their cuts from the drifting snow, by the erection of snow-fences and snow-sheds at every exposed point. Then *why* should the company be censured for what neither they nor any one else could have surmised?

How the road will be protected in future is as yet undecided. The President, Mr. Clark, says (April 20): “I do not know yet just what plan we shall adopt to prevent the recurrence of the snow blockade, but you can assure the public that if a liberal expenditure of money will protect the road, it SHALL BE DONE.” We know the road can be protected by a thorough system of snow-sheds, and we believe it will be.

1860-1870.

The States and Territories on the line of the Union and Central Pacific Railroad—or immediately tributary to it—contained a population in 1860 of only 554,301, with 132 miles of telegraph line and 32 miles of railway. This same scope of country contained a population, according to the census of 1870, of 1,011,971, and it is now encompassed by over 13,000 miles of telegraph lines and 4,192 miles of railroads, completed, and many more in progress, in which are invested the enormous capital of *Three Hundred and Sixty-three Millions Seven Hundred and Fifty Thousand Dollars*.

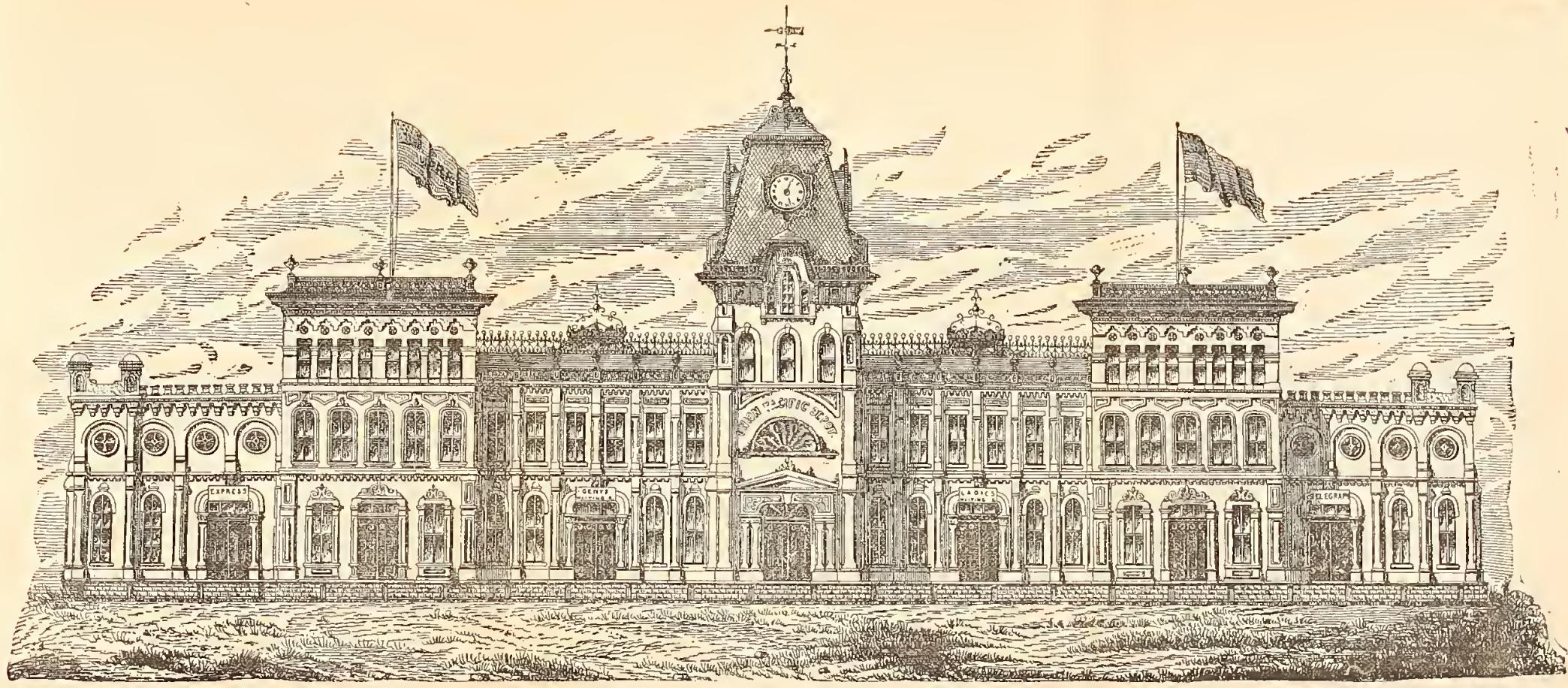
Should we add to the above the immense amount of capital invested—within the same ten years—in quartz mills, smelting furnaces, development of mines, and other resources of the country, the grand total would be truly astonishing.

We have the official figures, exhibiting the improvements within an area of two miles of each town on the line of the Union Pacific Railroad—furnished us by J. M. Eddy, Esq., of the Town Lot Department—which show that \$1,798,810 has been expended for buildings, and 1,293 new ones have been erected. With this large expenditure for buildings alone, what must be the amount for agricultural and other purposes?

Where, but a few years ago, the buffalo and other game roamed in countless thousands, and the savages skulked in the canyons and secret hiding-places where they could pounce out *unawares* upon the emigrant—the hardy pioneer who has made the wilderness, if not “to blossom like the rose,” a safe pathway for the present generation, by laying down their lives in the cause of advancing civilization—now are to be seen hundreds of thousands of hardy emigrants, with their horses, cattle, sheep, and domestic animals, and the savages are among the things that have “moved on.”

NOW LET US REASON TOGETHER,

O ye croakers! in view of the above figures about the everlasting cry concerning our “Public Domain,” “railroad land grants,” “giving away the lands,” “burning shame,” etc., etc. “Now, by the Eternal!” as old General Jackson would say, we would like to know what the lands would be worth without a railroad? Could the Government ever sell them? NEVER. It could not realize as much from a million of acres as it would cost their surveyors and land-agents for cigars while looking after them. When the Pacific Road commenced, there was not a land



THE MAIN DEPOT OF THE UNION PACIFIC RAILROAD, at the eastern terminus of the line, is to be erected at Omaha, and our engraving, taken from a Photograph furnished by the Company, drawn by Mr. Lindo, gives an excellent idea of what its appearance will be when finished.

The depot will be built of brick with stone trimmings; and it is proposed to erect it on the high ground adjacent to the river bluffs, in the southern part of Omaha, at a point about three hundred yards from the end of the west approach to the Bridge. The extreme length of the building will be 284 feet, and the greatest depth 91 feet. The height of the first story will be 20 feet in the clear; of the second 17 feet 6 inches; of the third, extending over part of the building only, 13 feet 6 inches. The top of the cornice on the tower is to be 61 feet from the ground; the centre of the clock 50 feet; and the bell of the tower 120 feet.

The first floor is divided into Passenger, Tick-t-Office, Pullman's Palace Ticket Office, Gentlemen's Waiting Room, Ladies' Waiting Room, Ladies' Dressing Room, Offices of the Law Department, and Telegraph, Express and Baggage Offices. The Gentlemen's and Ladies' Waiting Rooms are each 4x55 feet; the Law Department and Express Offices 35 feet 6 inches by 70 feet each; and the Telegraph and Baggage Rooms 30x35 feet each. There is also a large and spacious vestibule leading to the main lobby. Other partitions are all in walls 131 feet in length by 8 feet in width, and numerous offices open at each side. Here is the General Freight Office 35x70 feet in size; room for the Records of the General Freight Office 33x35 feet; Auditor's Office 24x33 feet; General Superintendent's Office 23x33 feet; Assistant General Superintendent's 8x33; Engineer's 21x32; General Ticket Office 35x70; Records of Land Department 33x35 feet. The remaining space will be apportioned among the following offices: Cashier's, Clerk's, Sub-clerk's, Attorney's, Rollinators, &c. The building is to be made absolutely fireproof for the security of the Records therein deposited. The cost of the Depot, it is believed, will be about \$100,000. The building will be completed and occupied probably during the Autumn of 1872.

A FORTUNE IN A FEW YEARS!

FINE LOCATION FOR MANUFACTORIES.



PURE AIR AND PURE WATER!

MAGNIFICENT SCENERY AND GOOD CLIMATE!

THE

UNION PACIFIC RAILROAD COMPANY

OFFERS

EXTRAORDINARY Inducements to Merchants, Manufacturers and Artisans, to settle on the line of their Road.

Now is the time money can be made from the start, then grow up with the Country.

THE TOWN LOT DEPARTMENT embraces one hundred towns between Omaha, Neb., and Corinne, Utah, and is now ready to sell an unlimited number of Business and Residence Lots, at very low rates, to actual settlers desirous of building up permanent towns and cities along this great thoroughfare. Nebraska, Colorado, Wyoming, Montana and Utah are rapidly filling up with a permanent population, who are settling upon the rich agricultural lands on either side of the road, and developing the Gold, Silver, Copper, Lead, Iron and Coal mines of the most extensive and richest mining districts in the world. All these, and the people of interior mining camps and towns, must depend on the nearest towns located on the Union Pacific Railroad for their supplies of dry goods, clothing, groceries, drugs and medicines, hardware, crockery and glassware, furniture, farming implements, machinery, tools, &c., &c. Already the demand for legitimate trade exceeds the supply, and will more than double every year.

These towns have been located with a view to health, business capacity and scenic beauty, and large numbers of them are rapidly growing into public prominence. As an index of their prosperity, it may be stated that the new buildings erected in these towns during the year 1871, cost one and three-fourths millions of dollars!

Choose your location, then your business, and for full information apply to agents on the ground, or address

J. M. EDDY,
Gen'l Town Lot Agent, U. P. R. R.,
OMAHA, Neb.

PACIFIC MAIL STEAMSHIP COMPANY'S THROUGH LINE TO

California, Japan and China,

VIA PANAMA AND SAN FRANCISCO

Carrying MAIIS, PASSENGERS and FREIGHT to

KINGSTON, JAMAICA, ASPINWALL,
PANAMA, PUNTA ARENAS,
SAN JOSE DE GUATEMALA,
ACAPULCO, MANZANILLO, MAZATLAN,

— AND —

SAN FRANCISCO

AND THENCE

To YOKOHAMA, HONG-KONG, SHANGHAE,
NAGASAKI and HIOGO,
CONNECTING AT

HONG-KONG, with Steamers for Ports of the CHINA COAST & INDIA

ALSO, BY CONNECTING LINES OF STEAMERS

At ASPINWALL—For GREYTOWN, SANTA MARTHA,
CARTHAGENA, SAVANILLA, PUERTO CABELO
and LAGUAYRA.

At PANAMA—For Central American Ports on Pacific Coast
—GUAYAQUIL, CALLAO, VALPARAISO, and Inter-
mediate Ports of PERU and CHILI.

At SAN FRANCISCO—For AUSTRALIA, NEW ZEALAND,
SANDWICH ISLANDS, OREGON, BRITISH COLUMBIA,
ALASKA, and NORTH and SOUTH COAST of
CALIFORNIA.

For Rates of Passage, Dates of Departure, Passage Tickets, or
further information, apply at the Office, on the

Wharf, Pier 42 North River, foot of Canal St., New York.

F. R. BABY, Agent.

PHOTOGRAPHS OF

YO SEMITE VALLEY BIG TREES,

AND THE

GREAT OVERLAND RAILROAD, IN ALL SIZES.

The largest assortment in the world, on Exhibition and sale at the

YO SEMITE GALLERY,
No. 9 Montgomery Street, Lick House,
SAN FRANCISCO, CAL.,
— BY —

THOMAS HOUSEWORTH & CO.,
LANDSCAPE PHOTOGRAPHERS,
And TICKET AGENTS for the travel to
YO SEMITE VALLEY AND BIG TREES.
— 0 —

Tourists are invited to visit this Establishment.

Catalogues of Views free to any address. Views of any
part of the Pacific Coast made to order.



HON. HORACE F. CLARK,
President of the Union Pacific Railroad Company.

office in Colorado, Wyoming, Montana, Utah, or Nevada, and only one or two in each of the other States or Territories. On the other hand, by the building of the road, many millions of dollars have already found their way into the Government coffers, and at just double the usual price per acre. The Government to-day stands in the position of the boy who wanted to eat his apple, sell it, and then get credit for giving it away. O generosity!

The Union Pacific Railroad.

Though but little faith was at first felt in the successful completion of this great railway, no one, at the present day, can fail to appreciate the enterprise

which characterized the progress and final completion of this road, the longest in the world, and its immense value to the Government, our own people, and the world at large.

By the act of 1862, the time for the completion of the road was specified. The utmost limit was July 1, 1876.

The first contract for construction on the Union Pacific was made in August, 1863, but various conflicting interests connected with the location of the line delayed its progress, and it was not until the 5th day of November, 1865, that the ceremony of breaking ground was enacted at a point on the Missouri river, near Omaha, Neb.

Mr. George Francis Train, in his speech on the occasion of breaking

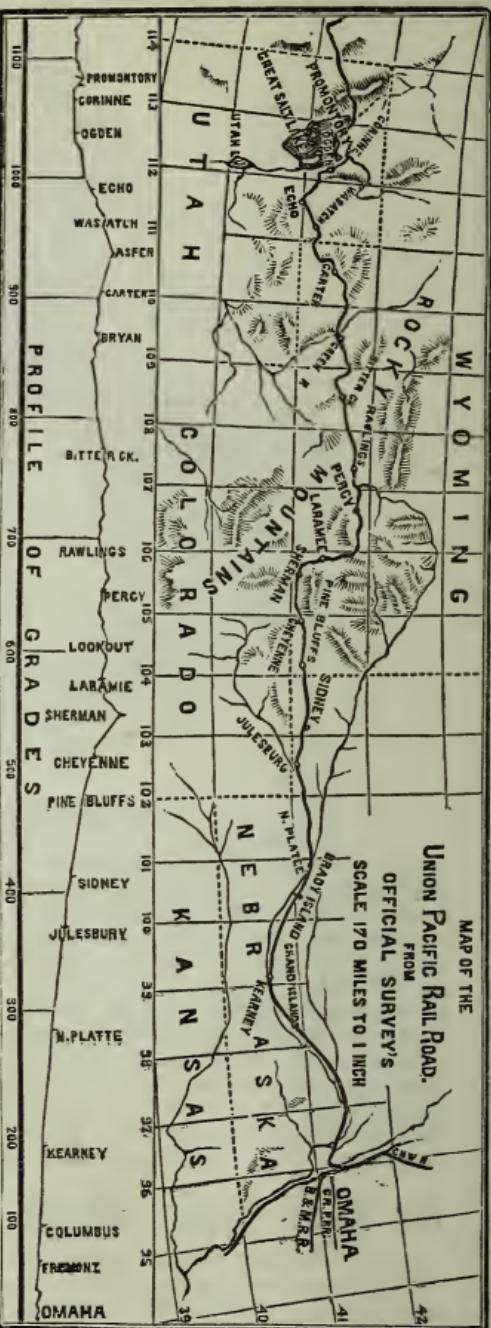
ground, said the road would be completed in five years. Old Fogey could not yet understand Young America, and, as usual, he was ridiculed for the remark, classed as a dreamer and visionary enthusiast, the greater portion of the people believing that the limited time would find the road unfinished.

It was completed to Promontory Point, in Utah—1,084 miles—in *three years six months and ten days*. By arrangements with the Central Pacific Railroad Company, the “Union” relinquished 46 miles of road to the “Central,” leaving its entire length 1,038 miles. A place called Union Junction, six miles west of Ogden, where the connection is made at present, has been decided by act of Congress to be the proper junction between the two roads. It is proposed to erect a mammoth hotel at the “Junction” (see illustration), which will be described hereafter.

In 1864, Omaha contained less than 3,000 population, mostly a trading people, and the railroad company were compelled to create, as it were, almost everything. Shops must be built, forges erected, all the machinery for successful work must be placed in position, before much progress could be made with the work. This was accomplished as speedily as circumstances would permit, and by January, 1866, 40 miles of road had been constructed, which increased to 265 miles during the year; and in 1867, 285 miles more were added, making a total of 550 miles on January 1, 1868. From that time forward the work was prosecuted with greatly increased energy, and on May 10, 1869, the road met the Central Pacific Railroad at Promontory Point, Utah Territory—the last 534 miles having been built in a little more than 15 months, being an average of nearly one and one-fifth miles per day.

MATERIAL USED, AND HOW OBTAINED.

Most Americans are familiar with the history of the road, yet but few are aware of the vast amount of labor performed, in obtaining the material with which to construct the first portion.



There was no railroad nearer Omaha than 150 miles eastward, and over this space all the material purchased in the Eastern cities had to be transported by freight-teams at ruinous prices. The laborers were, in most cases, transported to the railroad by the same route and means. Even the engine, of 70 horse power, which drives the machinery at the Company's works at Omaha, was conveyed in wagons from Des Moines, on the river of that name; that being the only available means of transportation at the time.

For six hundred miles west of Omaha the country is bare of lumber, save a limited supply of cottonwood, on the islands in and along the Platte river, wholly unfit for railroad purposes. East of the river the same aspect is presented, so that the company were compelled to purchase ties cut in Michigan, Pennsylvania, and New York, at prices reaching \$2 50 per tie. We might add that the supplies necessary to feed the vast body of men engaged had to be purchased in the East, and thus transported. In less than a year, however, these obstacles had been overcome, and the work proceeded at much less expense thereafter.

THE UNION PACIFIC RAILROAD DEPOT.

On another page will be found a beautiful illustration, which was engraved expressly for the GUIDE, accompanied with a full description.

THE LAND DEPARTMENT

to the emigrant must be of more interest than any other. O. F. Davis, Esq., is the Land Commissioner, whose advertisement will be found on our Time Table map.

We are informed by Mr. Davis that the sales of lands in his department, mostly to actual settlers, from August 1, 1869, to April 1, 1872, amounted to 518,000 acres, for which he received \$2,180,000. Pretty good for 21 months.

THE TOWN LOT DEPARTMENT.

Business men who are seeking a good

location in the West, where they can procure a "foothold" at a low figure, make a good living from the start, and "grow up with the country," will find this department of *unusual importance*. It embraces 100 towns between Omaha, Nebraska, and Corinne, Utah. J. M. Eddy, Esq., is the general agent at Omaha.

THE COMPANY'S WORKS.

To the right, on the low land fronting the river, the company have located their principal shops and storehouses. They are built of brick, in the most substantial form, and with the out-buildings, lumber yard, tracks, etc., cover about 30 acres of ground. The master-mechanic of the road is I. H. Congden.

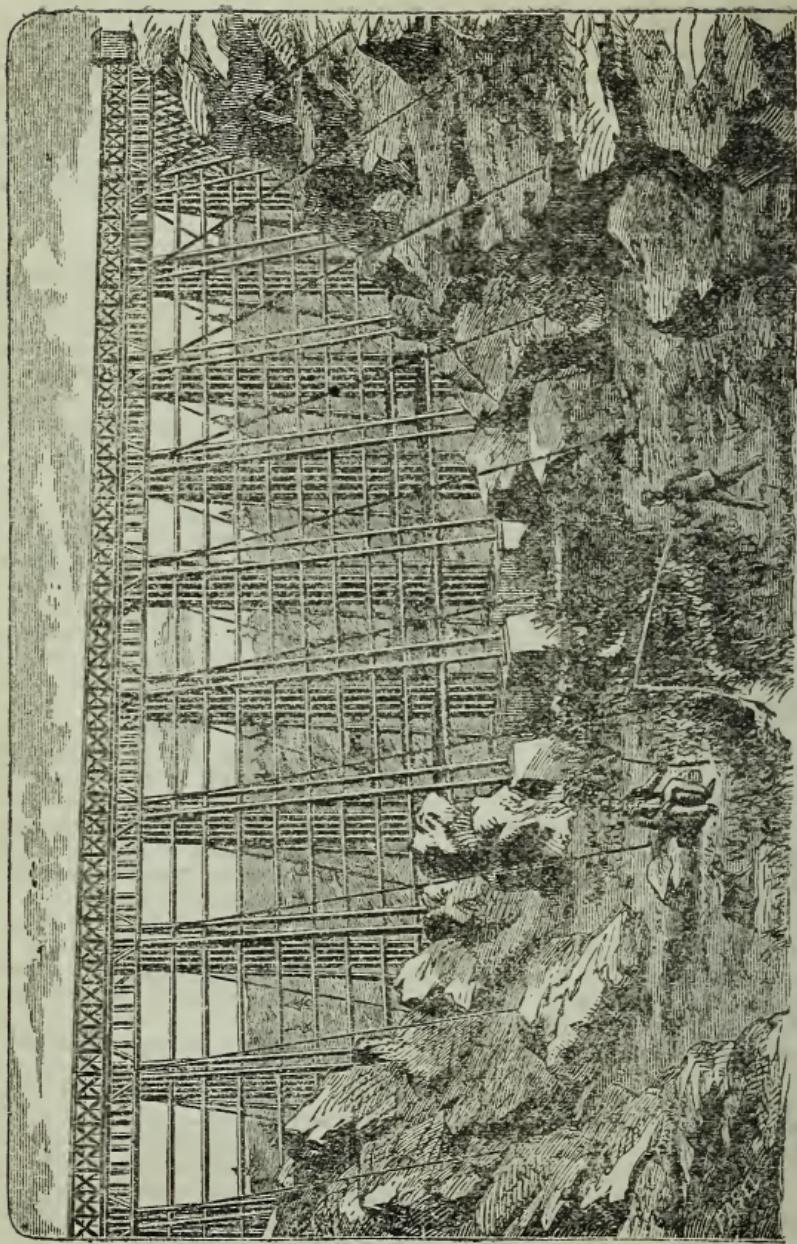
THE ROUND HOUSE.

This building is one and a-half stories high, of brick, with the exception of five stalls, which were the first put up for the road, and are built of wood. The building contains twenty stalls in all, and is under the charge of James McConnell, master-mechanic of the Omaha shops.

MACHINE SHOP.

This is built with very strong walls, and is 60x120 feet in size. It is furnished with all the new and most improved machinery which is necessary for the successful working at all the branches of car and locomotive repairs or car construction. Among the machines may be seen lathes for turning driving-wheels, two boring mills for boring car-wheels, and one hydraulic press, used for pressing car-wheels on their axles.

At one time this shop presented a lively scene—when 850 sinewy men were busily engaged in manufacturing and repairing cars. All this body of men were then connected with the locomotive department, and could no more than keep that department of the road in repairs. No other shops on the line were then in working order, excepting those at North Platte. Now, the force is reduced, as the company are abundantly



Dale Creek Bridge, U. P. R. R.—(Described on page 62.)

supplied with cars for the present trade, and the men are scattered along the line, forming the working force of other shops, of which there are many. But during this great rush, they were congregated here, and the machinery was run day and night. As many as eleven locomotives were on the stalls under repairs at one time; besides that, they were turning out three freight cars per day, one passenger car per month, and one baggage car per week. During this time, they also supplied the contractors along the line with needed material, which is usually manufactured at the company shops. The whole road, in fact, with the exception of North Platte station, drew its supplies from this shop.

THE FOUNDRY.

The foundry is a very fine structure, and during the winter of 1868-9 150 men were employed there. About sixteen tons of castings per day were turned out, consisting, mostly, of columns and pillars for the new shops building along the line. The hotels in course of construction for the company, at the different eating stations, were large receivers of lighter columns and pillars—nearly every hotel being built, in part, of iron.

BLACKSMITH SHOP.

This building is 80x200 feet, one story and a half high, well ventilated, and supplied with 40 forges, which, during the driving time spoken of, were all employed, 144 men being at work about the shop and around the 40 fires. There are no shops superior to this, and not many equal to it, on our oldest railroads. The forges are a curiosity in their way, all of them having been cast, at the company's foundry, after a design by Mr. Congden.

THE STORE ROOM.

This building is 76x80 feet, one and a-half stories high, built with very heavy walls.

CAR AND PAINT SHOP.

The car shop is 75x150 feet, one and a-half stories high, with a wing 40x100

feet. The paint shop, which might be said to be connected with the car shop, is 30x121 feet. The capacity of the car shop is four box cars per day, one coach per month, two second-class passenger cars or two mail cars during the same period.

The lumber-yard is capable of containing five and a-half million feet. The lumber used in constructing the cars is mostly oak and ash, obtained in Northern Indiana, Wisconsin, and Michigan. In point of neatness of finish, strength of build and size, the passenger cars manufactured here are unsurpassed by any, and rivaled by few manufactured elsewhere. No part of the car is slighted, and, when they are finished, reflect credit on the master car-builder, George E. Stevens, and on the company, who so liberally provide for the ease and comfort of the passengers who patronize their road. At one time 900 men were employed in this department, but as the company became better supplied, they reduced the force employed to suit their demands.

The painting on these magnificent carriages is equal to any we have seen elsewhere. It is the expressed determination of the Union Pacific Company to provide as good cars and coaches for the traveling public, in style and finish, as those of any Eastern road. They reason, that as the great trans-continental railroad is the longest and grandest on the continent, its rolling-stock should be equally grand and magnificent. From the appearance of the cars already manufactured, they will achieve their desires. On the same principle, we proposed to make our GUIDE BOOK superior to any other. *Haven't we done so?*

STATIONARY ENGINE, WATER-TANK, ETC.

The engine which furnishes the power necessary to drive the vast amount of machinery in these shops is of 70 horse-power, and is a model of symmetry and finish. It was hauled to its present place in wagons from Des Moines, Iowa. The engine house is flanked by the transfer tables, by which cars are moved

from stall to stall, or from shop to shop. A large water tank, capable of holding many thousand gallons, is another feature of the establishment. In fact, it would be very difficult for the most zealous fault-finder to find scope for his amiable qualities while wandering around the company's shops at Omaha. Here also are manufactured the "Stevens Truck," invented by Car-mester Stevens. These trucks are of new design, calculated for all kinds of cars, and are fast superseding those now in use. They have been placed under the Pullman car in many instances, and give perfect satisfaction. Having thus given a brief description of the road and its workings, we will now take a look at

OMAHA.

This city is situated on the western bank of the Missouri river, on a slope about 50 feet above high-water mark, with an altitude of 966 feet. It is the present terminus of the Union Pacific Railroad. By the census of 1870 it contained 16,083 inhabitants.

In 1854, the Council Bluffs and Nebraska Ferry Co. purchased the land now occupied by the city, and erected the first "claim house," afterwards known as the St. Nicholas. About this time the name of Omaha was given to the place, and a few squatters located here, among whom was A. D. Jones, now one of the "solid" men of the place. In the fall of that year he received the appointment of Postmaster for the place, which as yet had no post-office. As Mr. Jones was one of the most accommodating of men, he improvised a post-office by using the crown of his hat for that purpose. Few letters arrived, therefore the "old plug" hat answered every purpose. When the postmaster met one of his few neighbors, if there was a letter for him, off came the hat from the postmaster's head, while he fished out the missive and placed it in the hands of its owner. It is said that at times, when the postmaster was on the prairie, some expectant, anxious individual would

chase him for miles until he overtook the traveling post-office and received his letter. "Large oaks from little acorns grow," says the old rhyme—'tis illustrated in this case. The battered-hat post-office has given place to a first-class post-office, commensurate with the future growth of the city. It is now the distributing post-office, and employs quite an army of clerks, besides the assistant postmaster, as the Omaha people are a writing and reading community.

The State capital was first located here, but was removed to Lincoln in 1868. Omaha, though the first settlement made in Nebraska, is a young city. The town improved steadily until 1859, when it commenced to gain very rapidly. The inaugurating of the U. P. R. R. gave it another onward impetus, and since then the growth of the city has been almost unparalleled. There are many evidences of continued prosperity and future greatness. Like Council Bluffs, it has a large area of fertile territory tributary to it, and railroad or steamboat connections in every direction.

During the last year Omaha has improved substantially, although real estate and rents have declined—it is all the better for the city. The government is erecting a large post-office building, using a very fine quality of bluestone, which, when completed, will be one of the most attractive buildings in the city. But by far the largest and most expensive building is one to be devoted to educational purposes, which has been built within the last year (but not quite completed). It stands on the site of the Old State House, the highest point in the city, and is the first object which attracts the attention of the traveler on approaching from the East, North, or South. Its erection and commanding position stand forth as a fitting monument to attest a people's intelligence and worth. The great hotel enterprise we understand will soon be completed; we hope so, for if Omaha needs any one thing more than another, it is a good hotel.

Omaha has four daily newspapers—the *Herald*, *Democrat*; the *Tribune and Republican*, *Republican*; the *State Journal*; and the *Bee*. These journals are a credit to the city, and intensely devoted to *Omaha*. The *Agriculturist* is a monthly. The *Sunbeam* is also a monthly, devoted to the temperance cause. There are two collegiate institutes and convent schools, seven private and six public schools, in the city. There are also 15 churches, five banks, and hotels "till you can't rest." There are 32 manufactoryes of miscellaneous goods, several distilleries, six breweries, and nearly 100 wholesale and retail merchants who exceed \$25,000 in sales yearly. There are also several very extensive lumber dealers. Here, too, will be found

G. C. HOBBY, ESQ.,

Gen. News Agent of the Union Pacific Railroad, who will supply our GUIDE, "World," "Hickman," and in fact all our publications, either wholesale or retail. Dealers on the line of the U. P. and at Omaha should order of Hobby.

The traveler can reach any point on the Missouri or Mississippi rivers, north or south, by steamboat, during navigation.

OMAHA BARRACKS.

The barracks were established in 1868, are eight in number, capable of accommodating 1,000 men. They are situated about three miles north and in full view of the city. Latitude, 40 deg. 20 min.; longitude, 96 deg. from Greenwich. Eighty acres of land are held as reserved, though no reservation has yet been declared at this post. There is an excellent carriage-road to the barracks, and the post commander, General Palmer, has constructed a fine drive around them, which affords pleasure parties an excellent opportunity to witness the dress-parades of "the boys in blue." It is a favorite resort on Sundays; the parade, the fine drive, and improvements around the place, calling out many of the fashionable pleasure-seek-

ers of Omaha. The grounds have been planted with shade-trees, and in a few years it will become one of the many pleasant places around the growing city of Omaha.

The post is the main distributing point for all troops and stores destined for the western side of the "Big Muddy." The barracks were erected for the purpose of quartering the troops during the winter season, when their services were not required on the Plains, and as a general rendezvous for all troops destined for that quarter.

In the first volumes of the GUIDE we attempted to give the names of the officers commanding each post in the department, with the names and number of the companies under their command; but the changes are so rapid that we have found it impossible to keep up with them, and shall discontinue any further efforts.

RAILROADS.

Besides the Union Pacific, that claims Omaha as the initial point, there are two other lines,

THE OMAHA AND NORTHWESTERN RAILWAY.

This company was chartered under the general railway act—giving to any company having ten miles of road completed by the 15th of February, 1870, two thousand acres of land to every mile of road, not exceeding fifty miles. The Omaha and Northwestern complied with said act, and have completed at the present time 29 miles of road, extending to Blair, where it connects with the Sioux City and Pacific Railroad. It is said the company will speedily continue the road to the mouth of the Niobrara river, with a view of extending at some future time to Fort Berthold, on the Missouri river.

The course of the road is five miles up the Missouri river valley, then northwest to the valley of the Papillion, thence to the Elkhorn river, and up the Elkhorn valley to the mouth of the Niobrara.

THE OMAHA AND SOUTHWESTERN RAILWAY.

This company was chartered under the general railway act, having completed their first ten miles of road before the 15th of February, 1870. Its course is about six miles down the Missouri river valley, till very near the mouth of the Platte, then up the Platte to a point just above the mouth of Salt Creek and near Ashland, where it crosses the Platte and runs southwesterly to Lincoln, the capital of Nebraska, 67 miles distant.

Owing to local differences existing between the cities of Omaha and Council Bluffs, growing out of the location of the terminus of the Union Pacific Railroad, a movement is now being made by the Omaha people, in connection with capitalists in St. Louis, to build about 80 miles of road on the west side of the Missouri—a link which will afford another through line from Omaha via Lincoln, Atchison, and Kansas City to St. Louis and the East.

Before leaving Omaha, be sure and secure your tickets in one of the PALACE SLEEPING CARS that accompany all through trains, and you will thereby insure an opportunity for a refreshing sleep, as well as a palace by night and day. This, however, costs an extra fee. (*See Time Table map for prices.*) But as all cannot afford to ride in Palace Cars, "do the next best thing," and secure—pre-empt if you please—the best seat you can, and prepare to be as happy as you know how.

There is no longer any necessity of purchasing provisions to take along, as the meals are good; charges, from 75 cents to \$1 00 currency. The eating-houses are numerous, and the accommodations at all the principal stations for all those who wish to "stop over" a day or two are ample; charges, from \$3 to \$4 per day.

ONE WORD MORE, AND WE ARE OFF!

As you are about to leave the busy hum and ceaseless bustle of the city for the broad-sweeping plains, the barren

patches of desert, and the grand old mountains—for all these varied features of the earth's surface will be encountered before we reach the Pacific coast—lay aside all city prejudices and ways for the time; leave them in Omaha, and for once be *natural* while among nature's loveliest and grandest creations. Having done this, you will be prepared to enjoy the trip—to appreciate the scenes which will rise before you.

But, *above all*, forget everything but the journey—and in this consists the secret of having a good time generally.

The bell rings—the whistle shrieks—all ready—"all aboard"—and we pass along through the suburbs of the town for about four miles, when we pass

SUMMIT SIDING (A Flag Station), with an altitude of 1,142 feet. Six miles beyond we arrive at

GILLMORE,

ten miles from Omaha. We are descending rapidly. Elevation, 976 feet.

The country around this station is rich prairie land, well cultivated. A small cluster of buildings is near the road; the station is of little importance, merely for local accommodation. Five miles beyond we come to

PAPILLION (Pap-e-o).

Elevation, 972 feet. The station is on the east side of Papillion river, a narrow stream of some 50 miles in length, which, running southward, empties into Elkhorn river, a few miles below the station. The bridge over the stream is a very substantial wooden structure. This place, since our last note concerning it, has fully doubled its population, and evidences of thrift appear on every hand.

ELKHORN.

This station has improved very much during the last year. It is situated on the east bank of Elkhorn river, 14 miles beyond the last named, and of more importance in point of freight traffic—it being the outlet of Elkhorn river valley. Its elevation is 1,150 feet.

Five miles after leaving the station, we cross Elkhorn river, a stream of about

300 miles in length. It rises among the hills of the divide, near where the headwaters of Niobrara river rise and wend their way toward their final destination, the Missouri. The course of Elkhorn creek, or river, is east of south. It is one of the few streams in this part suitable for mill purposes, and possesses many excellent mill sites along its course. The valley of this stream averages about 8 miles in width, and is of the best quality of farming land. It is settled by Germans for over 100 miles in length from its junction with the Platte river. At this station, both freight and passenger trains stop; the passenger trains only for a few minutes. Several varieties of fish are found in the stream; the pickerel being among the number, and very plenty. The buffalo fish, pike, cat, and several other kinds are caught in great numbers. Wild turkey on the plains, and among the low hills, along with deer and antelope, afford sport and excitement for the hunter. The river swarms with ducks and geese at certain seasons of the year, that come here to nest and feed. The natural thrift of the German is manifested in his well-conducted farms, comfortable houses, surrounded by growing orchards and well-tilled gardens. There is no pleasanter valley in Nebraska than this, or one where the traveller will find a better field for observing the rapid growth and great natural resources of the Northwest; and should he choose to pass a week or more in hunting and fishing, he will find ample sport and a hospitable home with almost any of the German settlers.

VALLEY.

A score of new buildings evidences the improvements. Elevation, 1,120 feet. The Platte river hills can be seen in the distance, but a few miles away, in a southwesterly direction. Between Valley and Fremont we catch the first view of the Platte river to the left.

FREMONT.

Twelve miles after leaving Valley we

come to Fremont, the county-seat of Dodge County, Nebraska. Elevation, 1,176 feet. It is a telegraph and regular eating-station. Here is one of the best eating-houses on the whole line, kept in one of the railroad company's substantial buildings. The town is situated about three miles from Platte river, and contains a population of about 2,000 people. The company have, besides their excellent depot at this station, a round-house with six stalls. The public buildings include a jail and court-house (both very necessary, though more useful than ornamental), 7 churches, and some fine school-houses. Two years ago we said: "It was a thriving place in the midst of a beautiful country." Now, what do we find? During the last year—1871—there have been erected (according to Eddy) 375 dwellings, 2 hotels, 1 school-house, 4 churches, 17 offices, 2 banks, 2 public halls, 1 court-house, 1 jail, 30 stores, 1 livery stable, 1 brewery, 12 saloons, and 7 buildings for miscellaneous purposes, costing \$615,600.

The *Tribune* and the *Herald*, both weekly newspapers, ably represent this thrifty town.

The Sioux City and Pacific R. R. connects here with the U. P., also connecting at St. John, Iowa, with the C. & N. W. R. R., and it is claimed the route is 33 miles shorter to Chicago than via Omaha. But we do not know of any through travel ever going this route, and judge the local travel to be its sole support.

THE PLATTE RIVER.

We are "now going up the Platte," and for many miles we shall pass closely along its north bank; at other times, the course of the river can only be traced by the timber growing on its banks. Broad plains are the principal features, skirted in places with low abrupt hills, which here in this level country rise to the dignity of "bluffs."

It would never do to omit a description of this famous stream, up the banks of which so many emigrants toiled in the "Whoa haw" times, from 1850 to



Hanging Rock, Echo Canyon. (See page 90.)

the time when the railroad destroyed Othello's occupation. How many blows from the butt of the ox-whip have fallen on the sides of the patient oxen as they toiled along, hauling the ponderous wagons of the freighters, or the lighter vehicles of the emigrant? How often the sharp ring of the "popper" aroused the timid hare or graceful antelope, and frightened them away from their morning meal of waving grass? How many tremendous jaw-breaking oaths fell from the lips of the "bull-whackers" during that period, we will not even guess at; but pious divines tell us that there is a statistician who has kept a record of all such expletives; to that authority we refer our readers, who are fond of figures. Once in a while, too, the traveler will catch a glimpse of a lone grave, marked by a rude headboard, on these plains; and has he time and skill to decipher the old and time stained hieroglyphics with which it is decorated, he will learn that it marks the last resting place of some emigrant or freighter, who, overcome by sickness, laid down here and gave up the fainting spirit to the care of Him who gave it; or, perchance, he will learn that the tenant of this restless house fell while defending his wife and children from the savage Indians, who attacked the train in the gray dawn or darker night. There is a sad, brief history connected with each, told to the passerby, mayhap in rude lines, possibly by the broken arrow or bow, rudely drawn on the mouldering head-board. However rude or rough the early emigrants may have been, it can never be charged to them that they neglected the sick or dead within their train. The sick were tenderly nursed by brave, gentle women, and the dead decently buried, and their graves marked by the men who had shared with them the perils of the trip. Those were days, and these plains the place that tried men's mettle; and here the western frontiersman shone superior to all others who ventured to cross the "vast desert" which stretch-

ed its unknown breadth between him and the land of his desires. Brave, cool and wary as the savage, with his unerring rifle on his arm, he was more than a match for any red devil he might encounter. Patient under adversity, fertile in resources, he was an invaluable aid at all times; a true friend, and bitter foe. This type of people is fast passing away. The change wrought within the last few years has robbed the plains of its most attractive feature—to those who are far away from the scene—the emigrant train. Once, the south bank of the Platte was one broad thoroughfare, whereon the long trains of the emigrants, with their white-covered wagons, could be seen stretching away for many miles in an almost unbroken chain. Now, on the north side of the same river, in almost full view of the "old emigrant road," the cars are bearing the freight and passengers rapidly westward, while the oxen that used to toil so weary along this route, have been transformed into "western veal" to tickle the palates of those passengers, or else, like Tiny Tim, they have been compelled to "move on" to some new fields of labor.

To give some idea of the great amount of freighting done on these plains, we present a few figures, which were taken from the books of freighting firms in Atchison, Kansas. In 1865, this place was the principal point on the Missouri river, from which freight was forwarded to the Great West, including Colorado, Utah, Montana, &c. There was loaded at this place, 4,480 wagons, drawn by 7,310 mules, and 29,720 oxen. To control and drive these trains, an army of 5,610 men was employed. The freight taken by these trains amounted to 27,000 tons. Add to these authenticated accounts, the estimated business of the other shipping points, and the amount is somewhat astounding. Competent authority estimated the amount of freight shipped during that season from Kansas City, Leavenworth, St. Joe, Omaha and Plattsmouth, as being fully equal, if not

superior to that shipped from Atchison, with a corresponding number of wagons, men, mules and oxen. Assuming these estimates to be correct, we have this result: During 1863, there were employed in this business, 8,960 wagons, 14,620 mules, 59,440 cattle, and 11,220 men, who moved to its destination, 54,000 tons of freight. To accomplish this, the enormous sum of \$7,289,300 was invested in teams and wagons alone.

But to return to the river, and leave facts and figures for something more interesting. "But," says the reader, "ain't the Platte river a fact?" Not much of one, frequently, for at times, after you pass above Julesburg, there is more fancy than fact in the streams. In 1863, teamsters were obliged to excavate pits in the sand of the river-bed, before they could find water enough to water their stock. Again, although the main stream looks like a mighty river, broad and majestic, it is as deceiving as the "make up" of a fashionable woman of to-day. The river looks broad and deep; try it, and you find that your feet touches the treacherous sand ere your instep is under water. There's a nice place, where the water appears to be rippling along over a smooth bottom, close to the surface; try that, and in you go, over your head in water, thick with yellowish sand. You don't like the Platte pretty well when you examine it in this manner; neither do the old teamsters speak well of this broad western river. The channel is continually shifting, caused by the vast quantities of sand which are continually floating down its muddy tide. The sand is very treacherous, too, and woe to the unlucky wight who attempts to cross this stream before he has become acquainted with the fords. Indeed, he ought to be introduced to the river and all its branches before he undertakes the perilous task. If anything goes wrong, and the train comes to a stop, down it sinks in the yielding quicksand, until the wagons are so firmly bedded that it requires more than double the original force to pull them out; and often

they must be unloaded to prevent the united teams from pulling them to pieces, while trying to lift the load and wagon from the sandy bed. The stream is generally very shallow during the fall and winter; in many places no more than six or eight inches in depth, over the whole width of the stream. Numerous small islands, and some quite large are seen while passing along, which will be noticed in their proper place.

From Omaha to the Platte river, the course of the road is southerly, until it nears the river, when it turns to the west, forming, as it were, an immense elbow. Thence, along the valley, following the river, it runs to Kearney, with a slight southerly depression of its westerly course; but from thence to the North Platte, it recovers the lost ground, and at this point is nearly due west from Fremont, the first point where the road reaches the river. That is as far as we will trace the course of the road at present.

The first view of the Platte valley is impressive, and should the traveler chance to behold it for the first time in the spring or early summer, it is then very beautiful; should he behold it for the first time when the heat of the summer's sun has parched the plains, it may not seem inviting, its beauty may be gone, but its majestic grandness still remains. The eye almost tires in searching for the boundary of this vast expanse, and longs to behold some rude mountain peak in the distance, as proof that the horizon is not the girdle that encircles this valley. When one gazes on mountain peaks and dismal gorges, on foaming cataracts and mountain torrents, the mind is filled with awe and wonder, perhaps fear of Him who hath created these grand and sublime wonders. — On the other hand, these lovely plains and smiling valleys — clothed in verdure, and decked with flowers — fill the mind with love and veneration for their Creator, leaving on his heart the impression of a joy and beauty which shall last forever.

Though we have stated that the

Platte river was not a reliable fact, we did not exactly mean it in that sense, It has not done much for navigation, neither will it, yet it drains the waters of a vast scope of country, thereby rendering the vast valleys fertile, and furnishing almost numberless acres, which now await but the advent of the hardy and industrious pioneer, to place them in the front rank of grain producing countries. The average width of the river, from where it empties into the Missouri to the junction of the North and South Forks, is not far from three fourths of a mile; its average depth about *six inches*. It is unnavigable for anything but a shingle, even in its highest stage. In the months of September and October, the river is at its lowest stage. The water is of the same muddy color that characterizes the Missouri river, caused by the quicksand bottom.

The lands lying along this river, belonging to the U. P. R. R., are now in the market, and the company are offering liberal terms and great inducements to settlers. Most of the land is as fine agricultural and grazing land as can be found in any section of the Northwest. Should it be deemed necessary to irrigate these plains, as some are inclined to think is the case, there is plenty of fall in either fork, or in the main river, for the purpose, and during the months when irrigation is required, there is plenty of water for that purpose, coming from the melting snow on the mountains. Ditches could be led from either stream and over the plains at little expense. Many, however, claim that in ordinary seasons, irrigation is unnecessary. We now return to the road and the stations.

KETCHUM,

Seven miles west of Fremont, is a new station of but little importance. Eight miles further, and we arrive at

NORTH BEND,

A telegraph and passenger station. Elevation, 1,259 feet. This is a thriving town of some 400 inhabitants, situated

near the river bank, and surrounded by a fine agricultural country, where luxuriant crops of corn give evidence of the fertility of the soil. For a few miles we ride nearer the river's bank than at any point between Fremont and North Platte. The south bank of the Platte is lined with timber, mostly cottonwood, which presents a beautiful appearance, and suggests the feasibility of raising timber in profusion on these plains.

RODGERS.

This is a new station, and apparently one of promise. It is 7 miles west of the Bend, and 7 east of

SCHUYLER.

This town is the county-seat of Colfax county, containing at the present time about 600 inhabitants, and rapidly improving. It has 5 churches, 2 very good hotels, with court-house, jail, school-houses, etc., etc. It is the first station, going west, where cattle are loaded into the cars, and shipped to Eastern markets. The railroad company have erected numerous cattle pens and sluices near the station to accommodate this increasing business. A bridge over the Platte river, two miles south of the station, is now in course of erection, which will center at this town a large amount of business from the south side of the river. The country appears to be unchanged—presenting the same general appearance as that through which we have passed. Eight miles from Schuyler we reach

RICHLAND,

a new and unimportant flag-station, ninety-two miles from Omaha, and 16 miles from Schuyler, we arrive at

COLUMBUS.

Elevation, 1,432 feet. The town contains about 1,500 inhabitants, 2 banks, 1 weekly newspaper, the *Platte Journal*, 6 churches, good schools, and several hotels and eating-houses. It is the county-seat of Platte county, and is called by George Francis Train the geographical center of the United States.

He advocated the proposition that the government buildings should be located here, and the capitol removed from Washington to this point. Probably, when George is elected President in '72, he will carry out the idea, and we shall behold the capital of the Union located in the center of the public domain. At one time this was a very busy place; large amounts of government corn being shipped to this point by rail in July and August of '67. Over 10,000,000 of pounds were re-shipped on wagons from this point to Laramie and the government posts and camps in the Powder river country. This was the first government shipment of freight over the Union Pacific Railroad.

Numerous projected railroads are in contemplation, and we think that Columbus is one of the best towns in the State. Present and future prospects are bright.

Soon after leaving Columbus, we cross Loup Fork on a fine wooden bridge, constructed in a substantial manner. This stream rises 75 miles northeast of North Platte City, and runs through a fine farming country, until it unites with the Platte. Plenty of fish of various kinds are found in the stream and its almost innumerable tributaries. These little streams water a section of country unsurpassed in fertility and agricultural resources. Game in abundance is found in the valley of the Loup, consisting of deer, antelope, turkeys, and prairie chickens, while the streams abound in ducks and geese.

JACKSON (A Flag Station),
between Columbus and Silver creek. After leaving Jackson, we cross Silver creek, and arrive at

SILVER CREEK STATION.

We notice new buildings in every direction, and substantial evidences of thrift on every hand. Elevation, 1,534 feet. North of this point lies the Pawnee Indian Reservation. This place is 17 miles from Columbus, and 12 miles east of

CLARK'S STATION,

named in honor of the present superintendent of the Eastern Division. No station on the line of the road has improved more than Clark's during the last year. The surrounding country is remarkably rich in the chief wealth of the nation, agriculture.

LONE TREE.

Elevation, 1,686 feet. Lone Tree is the county-seat of Merrick county, and has during the last year added over 50 dwellings, 1 court house, 1 jail, hotel, stores, etc. It now contains a population of about 400, and is surrounded by thrifty farmers. The "old emigrant road" from Omaha to Colorado crosses the river opposite this point, at the old "Shinn's Ferry." A bridge is now contemplated, and will be found of great commercial advantage to the town. Passengers will please take notice of the track—the road for 40 miles is built as straight as it is possible for a road to be built. When the sun is low in the horizon at certain seasons of the year, the view is very fine.

CHAPMAN'S STATION.

Elevation, 1,716 feet. A signal station fast settling up around. It is 10 miles from Lone Tree, and 12 miles from

GRAND ISLAND.

This is one of the regular eating-stations, 30 minutes being allowed for that purpose. The town contains from 800 to 1,000 inhabitants, 1 bank, several churches and schools, 2 good hotels, 1 court-house, a jail, 2 weekly newspapers, the *Independent* and the *Orchard and Vineyard*.

The bridge over the Platte river to the south, and the one over Loup Fork to the northward, has had a tendency to center a large amount of trade at this point. Between Omaha and Grand Island, 154 miles, the company commenced running in June, 1871, a "colony accommodation" train—a kind of a mixed daily—for passengers and

freight, stopping at all stations. This station was named after Grand Island in the Platte river, two miles distant, one of the largest in the river, being about 80 miles in length by four in width. The island is well wooded—cottonwood principally. It is a reservation held by the government, and is guarded by soldiers.

Leaving Grand Island, the traveler should keep his "eye peeled" for buffalo. For the next 200 miles he will be within the buffalo range, where, at certain seasons of the year, these animals cross the river. During the spring, they are wont to cross from the Arkansas and Republican valleys—where they have wintered—to the northern country—returning late in the fall. In 1860, immense numbers were on these plains on the south side of the Platte, near Fort Kearney, the herds being so large that often emigrant trains had to stop while they were crossing the road. At Fort Kearney, in 1859 and 1860, an order was issued forbidding the soldiers to shoot the buffalo on the parade ground. During the last two or three years these huge animals have not been very numerous.

ALDA (formerly Pawnee). *

This station is just east of the crossing of Wood River. After we cross the river the road follows along near the west bank for many miles, and is thickly settled, the farms in summer being covered with luxuriant crops of wheat, oats, and corn. Wood river rises in the bluffs, and runs south-east until its waters unite with those of the Platte. Along the whole length of the stream, and in its many tributaries, the land for agricultural purposes is unsurpassed by none in the Northwest, and we might say in the world. The banks of the river and tributaries are well wooded; the streams abound in fish and wild-fowl; and the country adjacent is well supplied with game, deer, antelope, turkeys, chickens, rabbits, etc., forming a fine field for the sportsman.

This valley was one of the earliest settled in Central Nebraska, the hardy

pioneers taking up their lands when the savage Indians held possession of this their favorite hunting ground. Several times the settlers were driven from their homes by the Indians, suffering fearfully in loss of life and property, but they as often returned, until they succeeded in securing a firm foothold. To-day the evidences of the struggle can be seen in the low, strong cabins, covered on top with turf, and the walls loopholed, and enclosed with the same material, which guards the roofs from the bullets and flaming arrows of the warriors.

WOOD RIVER STATION

is 10 miles from Alda, and during the last year nearly 40 buildings have been erected, and the indications are very favorable for a corresponding increase for the next year. Population about 200. Elevation, 1,907 feet. Considerable freight is left here for the Wood river country, which is rapidly settling up.

GIBBON.

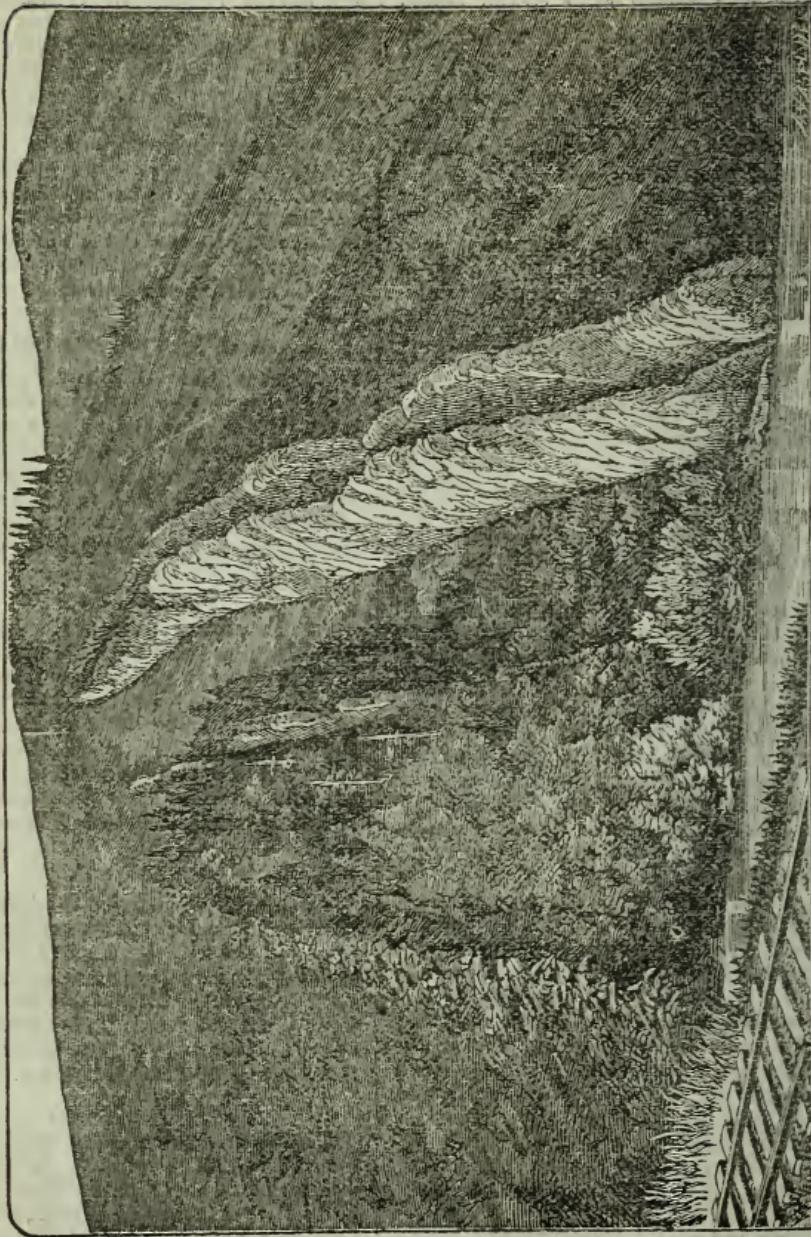
At this station, during the last year, 48 buildings have been erected, which include stores, hotels, school-houses, and dwellings. Oh! what changes we have to record! Wonderful it is, indeed, how this country is settling up! Population now over 250, and eighteen months ago we set it down as a "small side-track and flag station," between Wood river and

KEARNEY.

As this station will be the junction of the Burlington and Missouri River Railroad and the St. Joseph and Denver City Railroad, we had expected to find more improvements. The station has an elevation of 2,106 feet. It is named after old Fort Kearney, on the south side of the Platte, opposite the station.

FORT KEARNEY.

This post was first established at Fort Childs, Indian Territory, in 1848, by volunteers of the Mexican War. Changed to Fort Kearney in March, 1849. In 1858 the post was rebuilt by the late



Devil's Slide, Weber Canyon, U.P.R.R. Described on page 24.

Brevet Colonel Chas. May, 3d Dragoons. It is situated five miles south of Kearney Station, on the south bank of the Platte, which is at this point three miles wide and filled with small islands. At high water it is very difficult to cross the river with supplies for the fort. From the station, the goods are conveyed to the fort by government teams. But a bridge will soon be built which will obviate all further difficulties. The fort is situated in latitude 40 deg. 33 min., longitude 99 deg. 06 min. Two miles above the fort, on the south bank, is Kearney City, more commonly called "Dobey Town." This was once a great point with the old Overland Stage Company, and at that time contained about 1,000 inhabitants, but, from the withdrawal of the patronage of the line and the abandonment of the south-side route of travel, the greater portion left. But we are told the inhabitants are increasing, and it will soon regain its "old time" figures. We understand this place supports a live little weekly paper—*The Central Star*.

STEVENSON,

Side-track and flag station is 10 miles from Kearney Station. We now see less evidence of civilization, except that in connection with the railroad.

ELM CREEK.

This station is 11 miles from Stevenson and 211 from Omaha, and is the depot for the wood cut on Elm creek. A few small houses constitute the "town."

Elm creek is crossed soon after leaving the station, and is a small, deep, and quite a lengthy stream. It is well wooded, the timber consisting almost entirely of red elm, rarely found elsewhere in this part of the country, and there is plenty of good farming land here still unsettled.

OVERTON.

An intervening side-track station, situated on a branch of Elm creek. Nine miles more to .

PLUM CREEK.

This station is 230 from Omaha, and

during the last year has improved very much. Elevation, 2,370 feet. Named after an old stage station and military camp on Plum creek, a small stream which heads in very rugged bluffs southwest of the old stage station, and empties its waters into the Platte on the south or opposite side of the river from the railroad.

This old station on the "old emigrant road," was the nearest point to the Republican river country, being but 18 miles from that stream—the heart of the great Indian rendezvous and their supposed secure stronghold. At this point many of the most fearful massacres which occurred during the earliest emigration were perpetrated by the Sioux, Cheyennes, and Arapahoes. The bluffs here come very close to the river affording the savages an excellent opportunity for surprising a train, and, being very abrupt and cut up with gulches and canyons, afforded them hiding-places, from which they swooped down on the luckless emigrant, often massacring the larger portion of the party.

CAYOTE.

Here the bottoms are very wide, having steadily increased in width for several miles. Along the river is heavy cottonwood timber, which has extended for the last 50 miles. From this point westward the timber gradually decreases in size and quantity. Ten miles to

WILLOW ISLAND.

The country round about is as rich as any to the eastward, and fine lands can be obtained here from the railroad company at a low figure. We predict that by the next year's revise of THE GUIDE, the greater portion will have been taken up. Elevation, 2,511 feet. Here may be seen a few board and log houses, with their sides pierced with loop-holes and walled up with turf, the roofs being covered with the same material, which reminds one of the savage against whom these precautions were taken. It derives its name from an island in the Platte, the second in size in that stream. And we might add that from here up

the river the traveller will doubtless observe many of the rude forts along the roadside as well as at the stations. The deserted ranches to be met with along the "old emigrant road," on the south side of the river, are fortified in the same manner. The fort was generally built of logs, covered on top and walled on the side in the manner described. They are pierced with loop-holes on all sides; and afforded a safe protection against the Indians. They generally stood about fifty yards from the dwelling, from which an underground passage led to the fort. When attacked, they retreated to their fortification, and there fought it out on that line. Ten miles to

WARREN:

Side-track and flag station ; 8 miles to

BRADY ISLAND

Elevation, 2,637 feet. The station derives its name from an island in the river, which is of considerable size. A few rough houses constitute the town, but its natural advantages are good, and, with a proper development of the country, will make a "good town." Soldiers were formerly drawn up in line on the arrival of trains here, and at many other stations along the line, detailed to protect the company's men and property from any wandering bands of Indians who may chance to pass through this part of the valley, as this is one of their favorite crossings. Nine miles to

McPHERSON,

The station was named in honor of General McPherson. It is a regular military, passenger, and freight station; six miles from the Platte river, and seven miles from old "Cottonwood Springs" on the opposite side of the river, with which it is now connected by a bridge, a great improvement on the old fort. The country round about is well watered, and timber on the bottoms can be obtained for all necessary purposes. A large amount of fine meadow land adjoins the station, from which are cut thousands of tons of hay that are either sold to the government at the fort or shipped up or down the road.

FORT MCPHERSON.

This post was established Feb. 20, 1866, by Major S. W. O'Brien, of the 7th Iowa Cavalry. It was originally known as "Cantonment McKeon," and also as "Cottonwood Springs." At the close of the war, when the regular army gradually took the place of the volunteers who had been stationed on the frontier during the rebellion, the names of many of the forts were changed, and they were renamed in memory of those gallant officers who gave their lives in defence of their country. Fort McPherson was named after Major-General James B. McPherson, who was killed in the battle before Atlanta, Georgia, July 22d, 1864. Supplies are received via McPherson Station. Located in latitude 41 deg., longitude 100 deg. 30 min. Eight miles from McPherson Station and we arrive at

GANNETT:

This is a small flag station about 5 miles east of the

NORTH PLATTE RIVER,

which we cross on a very large and substantial trestle bridge. This river rises in the mountains of Colorado, in the North Park. Its general course is to the southeast. It is crossed again by the railroad at Fort Steele, 695 miles west of Omaha. The general characteristics of the stream are similar to those of the South Platte.

On the west bank of this stream, 80 miles north, is Ash Hollow, rendered famous by General Harney, who gained a decisive victory over the Sioux Indians. For 100 miles up this river the "bottoms" are from 10 to 15 miles wide—very rich lands, which are susceptible of cultivation, though perhaps requiring irrigation. Game in abundance is found in this valley, together with numerous bands of wild horses.

Fort Laramie is situated about 150 miles from the junction, near where the Laramie river unites with this stream. After crossing the river and proceeding about one mile we arrive at

NORTH PLATTE CITY.

This city is now the county seat of Lincoln county, and one of the finest locations for a large place on the whole line of the U. P. Road. We predict that the time is not far distant when a railroad will be built up the North Platte river, and we will just give the route, premising that we know every foot of the country—for over three hundred miles: The road will follow up the Platte to a point near Fort Fetterman, thence strike across a low divide *via* Curtis Wells, to Fort Reno, on Powder river; thence *via* Fort Phil Kearney and Fort Horn, on the Big Horn river: which stream it will follow down and form a junction with the North Pacific Railroad, near the junction of the Big Horn and Yellowstone rivers. Now, O ye Railroad Kings! here is a line for you, which passes through a country richer in natural wealth than that on any other railroad organized in the whole great western country. Let us take a look at this section, which is usually designated as

THE BIG HORN COUNTRY.

The Big Horn river rises about latitude 43, in Wyoming Territory, and flows nearly due north, and empties into the Yellowstone, in the Territory of Montana. It is the largest branch of the Yellowstone, which is now known only to the hunter, trapper, and distant campaigner, but which will some day be known in the markets of the world for the crops and minerals it will bring to them. About midway of its course the Big Horn breaks through the mountains, forming one of the largest and grandest canyons in the world. Up to this point it is known on the maps as the Wind river, but from the mountains to the Yellowstone it is the Big Horn proper, and it is of this part of the river that we now propose to write.

All the elements of prosperity and wealth are found in the Big Horn country, when our people need it for settle-

ment and culture. Soil and climate are all that could be desired. The rivers are large, and able to market great crops and stores of minerals. All the streams abound with fish, such as bass and trout. The mountains furnish plenty of good pine for lumber, sand and freestone, limestone and clay, and good coal crops out in places in the mountains. Iron ore is also found in the mountains, and gold-bearing quartz was discovered in the Big Horn Mountains in 1864 or 1865 by a party of miners from California. Color of gold can be found in the streams, and a great many fine specimens of nugget gold have been picked up by the Indians and brought into the forts and traded for sugar and coffee.

The gulches embrace the head-waters of the Big Horn, Powder river and Clear creek, and their innumerable tributaries, in all of which gold has been discovered, and in many places in paying quantities.

The cost of building a road up this river from North Platte City will not exceed the expense of the construction on the line of the Union Pacific R. R. from Omaha to this city.

North Platte has improved very rapidly during the last year. Churches, hotels, country buildings, and scores of dwellings have been built, or are in course of erection. The *Democrat*, a weekly live paper, is published here. A new bridge has been completed across the South Platte river, and tens of thousands of cattle, sheep, and horses are to be seen in every direction. The advantages of this place as a stock range and shipping point exceed all others on the line of road.

Elevation, 2,789 feet, 291 miles west of Omaha. The road was finished to this place, November, 1866. Here the company have a stone round-house of 20 stalls, a blacksmith and repair shop, all of stone.

In its palmiest days, North Platte boasted a population of over 2,000, which was reduced in a few months after the road was extended to as many hundreds, independent of the company

men, but it now contains 700. Until the road was finished to Julesburg, which was accomplished in June, '67, all freight for the West was shipped from this point, when the town was in the height of its prosperity. Then the gamblers, the roughs and scalawags, who afterward rendered the road accursed by their presence, lived in clover; for there were hard-working, foolish men enough in the town to afford them an easy living. When the town began to decay, they sallied forth, and for many months followed up the road, cursing with their Upas blight every camp and town, until some one of their numerous victims turned on them and "laid them out," or an enraged and long-suffering community arose in their own defence, binding themselves together, *à la vigilantes*, and, for want of a legal tribunal, took the law into their own hands, and hung them to the first projection high and strong enough to sustain their worthless carcasses, until they "went dead again," and the country was rid of their presence. But many "moved on," and we shall hear of them again many times before we are through. The Railroad House—a fine building—was burned to the ground about the 1st of July, 1869; but now another building of the same size and finish has been erected by the energetic railroad company, costing nearly \$40,000, where passengers can obtain a first-rate meal.

Near the city as we leave it for the west on the south side of the road will be seen a government camp, where soldiers are kept to guard the bridge and situation generally.

The country west from this bears the appearance more of a grazing than an agricultural section, though excellent farming land is found along the river bottoms, still unoccupied. Eight miles to

NICHOLS.

The roads turn more to the westward, and after passing over 17 miles of broad bottom lands from North Platte City, we arrive at

O'FALLON'S STATION, situated in the Sand Hills, nine miles from Nichols. Gradually we lose sight of the timber, and when we pass the sand bluffs, just above the station, it has entirely disappeared. On the south side of the river are the famous O'Fallon's Bluffs, a series of sand hills interspersed with ravines and gulches, which come close to the river's bank, forming abrupt bluffs, which turned the emigrants back from the river, forcing them to cross these sand hills, a distance of eight miles, through loose yielding sand, devoid of vegetation. Here, as well as at all points where the bluffs come near the river, the emigrants used to suffer severely, at times, from the attacks of the Indians. Opposite, and extending above this point, is a large island in the river, once a noted camping ground of the Indians. O'Fallon's Bluffs are the first of a series of sand hills, which extend north and south for several hundred miles. At this point, the valley is much narrower than that through which we have passed. Here we first enter the "alkali belt," which extends from this point to Julesburg, about 70 miles. The soil and water are strongly impregnated with alkaline substances. We now leave the best farming lands, and enter the grazing country. Fourteen miles from O'Fallon's Station to

ALKALI.

This station is directly opposite the old stage station of that name, on the south side of the river. After leaving the station, the road passes through the sand bluffs, which here run close to the river's brink. A series of cuts and fills, extending for several miles, brings us to the bottom land again, when after ten miles we arrive at

ROSCOE.

A small, unimportant station. Another ten miles and we are at

OGALALLA.

This station is 342 miles from Omaha. Elevation, 3,192 feet. Ten miles further we come to

BRULE.

A small, unimportant station. On the south side of the river, opposite, is the old ranche and trading post of the noted Indian trader and Peace Commissioner—Beauvé. Just below this point is the old California crossing, where the emigrants crossed when striking for the North Platte and Fort Laramie. Nine miles to

BIG SPRINGS.

Elevation, 3,325 feet. The station derives its name from a large spring—the first found on the road—which makes out of the bluffs, opposite the station, on the right hand side of the road, and in plain view from the cars. The water is excellent, and will be found the best along this road. After leaving this station we pass, by a series of cuts and fills, another range of bluffs, cut up by narrow ravines and gorges. At points, the roads run so near the river-bank that the water seems to be right under the cars. But emerge again after eight miles and come to

BARTON.

A Signal Station of very little importance. Passing on a short distance, we can see the old town of Julesburg, on the south side of the river. The town was named after Jules Burg, who was brutally assassinated, as will be related in another part of the GUIDE. Eight miles to

JULESBURG STATION.

This is a military freight, and passenger station, 377 from Omaha. Elevation, 3,394 feet. This station shows very little improvement; but we are informed the Union Pacific Railroad Co. propose to build a narrow gauge railroad, branching off from this place and running up the north side of the river, *via* Greeley, to either Denver or Golden City, where the line will connect with the whole narrow-gauge system of Colorado, and will prove an invaluable feeder to the main line. The distance from Julesburg is about 200 miles, through a section of country far more desirable than

traversed by the main line, which here turns to the northwest, up the valley of Lodge Pole Creek to near Egbert Station, about 100 miles distant. The last of Utah and California emigration that came up the Platte crossed opposite the station, and followed up this valley to the Cheyenne Pass. The railroad was completed to this point about the last of June, 1867, and all Government freight for the season was shipped to this place, to be reshipped on wagons to its destination. At that time Julesburg had a population of 4,000; now the town is almost deserted, except as a point for receiving military supplies for Fort Sedgwick, four miles south on the south bank of the river. During the "lively times," Julesburg was the roughest of all rough towns along the Union Pacific line. The roughs congregated there, and a day seldom passed but what they "had a man for breakfast." Gambling and dance houses constituted a good portion of the town; and it is said that morality and honesty clasped hands and departed from the place. We have not learned whether they have returned; and really we have our doubts about their ever having been there.

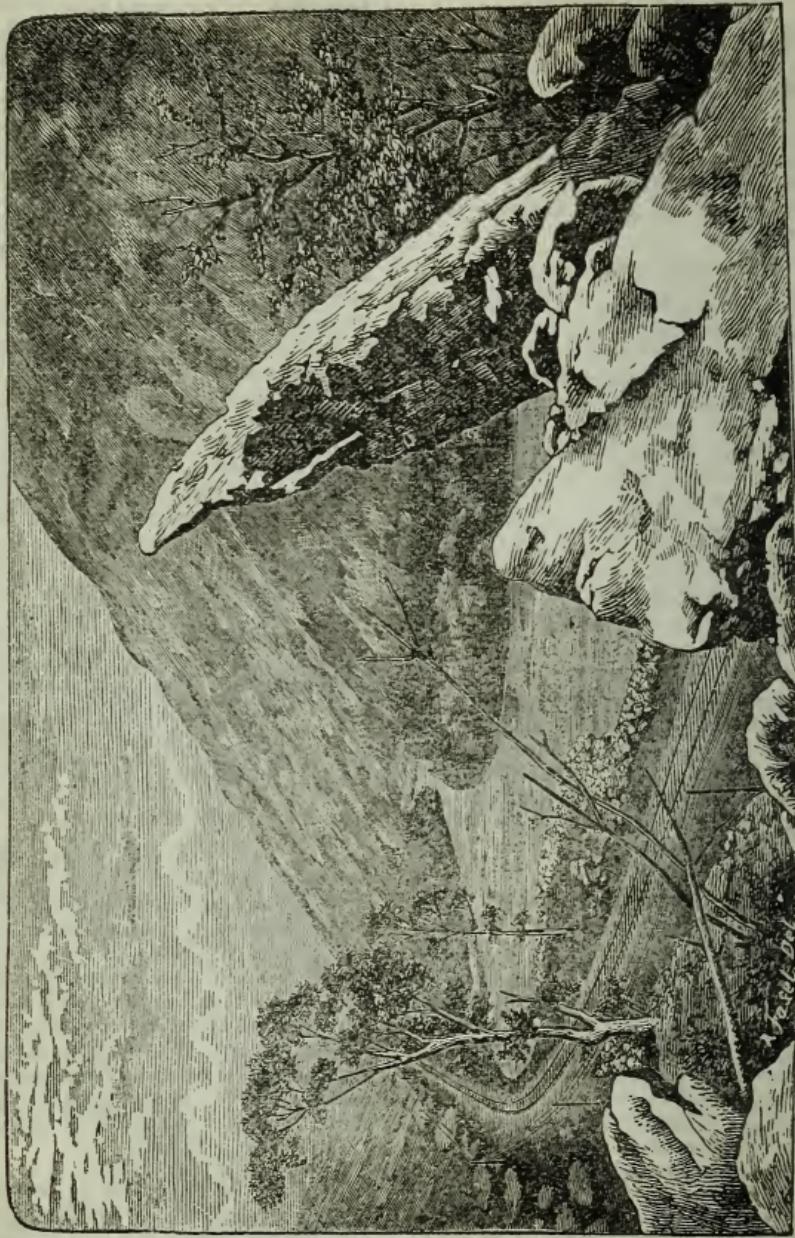
From this point to Denver, Colorado, the distance is 200 miles, following the course of the Platte river.

FORT SEDGWICK.

This post was established May 19, 1864, by the Third United States Volunteers, and named after Major-General John Sedgwick, Colonel Fourth Cavalry U. S. A., who was killed in battle at Spottsylvania Court House, Virginia, May 9th, 1864. It is located in the northeast corner of Colorado Territory, on the south side of South Platte river, four miles distant, on the old emigrant and stage road to Colorado, in plain view from the cars. Latitude 31 deg., longitude 102 deg. 30 min.

THE SOUTH FORK OF THE PLATTE RIVER.

This stream, which we have ascended to this place, and are now about to leave, rises in the Middle Park of the Rocky



Finger or Needle Rock, Weber Canyon, U. P. R. R.—(From photograph by Savage & Otinger, Salt Lake City.)

Mountains, Colorado Territory. The valley extends from Julesburg, up the river about 225 miles, to where the river emerges from the mountains. The average width of the valley is about three miles, and the soil affords excellent grazing. Game is abundant along the entire length of the valley. Passing on ten miles to

CHAPPEL.

A new station, unimportant. Ten miles to

LODGE PILE STATION.

Elevation, 3,800 feet. The valley is narrow, and furnishes fine grazing lands, on which may be seen, at almost any time, large herds of antelope. Eleven miles further we arrive at

COLTON,

A new station, named in honor of Francis Colton, Esq., a former General Passenger Agent, and author of a series of "Around the World by Steam" Papers published in *Crofutt's Western World*. Six miles to

SIDNEY,

Nebraska Territory. This is a regular eating station for all trains East and West, where Messrs. Ramsey & Son of the Laramie Hotel, Laramie City, serve up as good a meal as will be found on the track. Trains stop 30 minutes. The Government have established a military post at this station, and erected extensive barracks and warehouses. The post is on the south side of the track, a little to the east of the station. The "Post Trader" is James A. Moore, Esq., an old pioneer and hero of the "Pony Express," who made the most remarkable ride on record. "Jim" was at Midway Station (south side of the Platte), June 8th, 1860, when a very important Government despatch arrived for the Pacific Coast. Mounting his pony, he left for Julesburg, 140 miles distant, where, on arriving, he met a return despatch from the Pacific, equally important; resting only seven minutes, and, without eating, returned to Midway, making the "round

trip"—280 miles—in fourteen hours and forty-six minutes. The despatch reached Sacramento from St. Joseph, Mo., in eight days nine hours and forty minutes. "Jim's" greatest trouble now is to look after some 9,000 sheep and 2,000 cattle that are ranging around fattening on "Uncle Sam's" grass. The Indians dislike "Jim"—they call him "Bad Medicine."

The company have a round house, of ten stalls, and machine shop at this place, which add to the interest and business of the station. The place has improved very much since the last year; it now contains about 350 inhabitants, and is the only important station between North Platte and Cheyenne.

Nine miles to

BROWNSON (A FLAG STATION).

Named after Col. Brownson, who has been with the "U. P." from the first, and for a long time General Freight Agent. Ten miles further, and we arrive at

POTTER.

Elevation, 4,370 feet. Large quantities of wood are usually stored here, which is obtained about 20 miles north of this point, on Lawrence Fork and Spring Canyon, tributaries of the North Platte river. Potter, although not a large place, is situated near one of the largest on the road.

PRAIRIE DOG CITY.

At this point, and for several miles up and down the valley, the dwellings of the prairie dogs frequently occur but three miles west of the station they are found in great numbers, and there the great prairie dog city is situated. It occupies several hundred acres on each side of the road, where these sagacious little animals have taken land and erected their dwellings without buying lots of the company. (We do not know whether Mr. Eddy intends to eject them.) Their dwellings consist of a little mound, with a hole in the top.

from a foot to a foot and a half high, raised by the dirt excavated from their burrows. On the approach of a train, these animals can be seen scampering for their houses; arrived there, they squat on their hams or stand on their hind feet, barking at the train as it passes. Should any one venture too near, down they go into their holes, and the city is silent as the city of the dead.

It is said that the opening in the top leads to a subterranean chamber, connecting with the next dwelling, and so on through the settlement; but this is a mistake, as a few buckets of water will drown out any one of them. The animal is of a sandy-brown color, and about the size of a large fox squirrel. In their nest, living in perfect harmony with the dog, may be found the owl and rattlesnake, though whether they are welcome visitors is quite uncertain. The prairie-dog lives on grasses and roots, and is generally fat; and by many, especially the Mexicans, considered good eating, the meat being sweet and tender, according to their report. Wolves prey on the little fellows, and they may often be seen sneaking and crawling near a town, where they may, by chance, pick up an unwary straggler. But the dogs are not easily caught, for some one is always looking out for danger, and on the first intimation of trouble, the alarm is given, and away they all scamper for their holes.

COURTHOUSE AND CHIMNEY ROCKS.

About 40 miles due north from this station is the noted Court-house Rock, on the North Platte river. It is plainly visible for fifty miles up and down that stream. It has the appearance of a tremendous capitol building, seated on the apex of a pyramid. From the base of the spur of the bluffs, on which the white Court-house Rock is seated, to the top of the rock, must be near 2,000 feet. Old California emigrants will remember the place and the many names, carved by ambitious climbers, in the soft sand-stone, of which it is composed. From the foundation of the

Court-house Rock to its top is about 200 feet.

Twenty five miles from Court-house Rock, up the same river, is Chimney Rock, 500 feet high. It has the appearance of a tremendous cone-shaped sand-stone column, rising directly from the plain, the elements evidently having worn away the bluffs, leaving this harder portion standing. We next arrive at

BENNETT,

Nine miles west of Potter, a new and unimportant station.

ANTELOPE,

Situated at the lower end of the Pine Bluffs, which, at this point, are near the station.

We now enter what the plain's men call "the best grass country in the world," and one of the best points for Antelope on the route. The valley, bluffs and low hills are covered with a luxuriant growth of Gramma or "bunch" grass, one of the most nutritious grasses grown. Stock thrive in this section all the season, without care, excepting what is necessary to prevent them from straying beyond reach. Old work-oxen that had traveled 2,500 miles ahead of the freight wagon during the season, have been turned out to winter by their owners, and by the following July they were "rolling fat," fit for beef. We know this to be a fact, from the actual experience of one of the publishers of the GUIDE, who has had ten years' residence in the Territories. This country is destined to become—and the day is not far distant—the great pasture land of the continent. There is room for millions of cattle in this unsettled country, and then have grazing land enough to spare to feed half the stock in the Union. This grazing section extends for about 700 miles, north and south, on the eastern base of the Rocky Mountains, with an average width of 200 miles, besides the vast area included in the thousands of valleys, great and small, which are

found in all the mountain ranges. From the base of the mountains, nearly across this grazing belt, cattle find abundant water, for the mountain valleys are each supplied with creeks and rivers. Springs abound, in various sections, so that no very large section of land is devoid of natural watering places. The grass grows from nine to twelve inches high, and is peculiarly nutritious. It is always green near the roots, summer and winter. During the summer the dry atmosphere cures the standing grass as effectually as though cut and prepared for hay. The nutritive qualities of the grass remain uninjured, and stock thrive equally well on the dry feed. In the winter what snow falls is very dry, unlike that which falls in more humid climates. It may cover the grass to the depth of a few inches, but the cattle readily remove it, reaching the grass without trouble.

Again, the snow does not stick to the sides of the cattle and melt there, chilling them through, but its dryness causes it to roll from their backs, leaving their hair dry. The cost of keeping stock in this country is just what it will cost to employ herders—no more. The contrast between raising stock here and in the East must be evident—so much so, that even a blind man could see it. Again, by stocking this country with sheep, an untold wealth would be added. The mountain streams afford ample water power for manufactories, and wool enough could be grown here with which to clothe all the people of the Union, when manufactured into cloth. With the railroad to transport the cattle and sheep to the Eastern market, what is there to prevent immense fortunes from being realized here by stock-raising? Already Colorado contains over a million of sheep and vast herds of cattle. One man in Southern Colorado has over 40,000 head of the former kind of stock, and yet Colorado possesses no advantages for this business which is unshared by this portion. The time will come when the

eastern-bound trains will be loaded with cattle and sheep for the Chicago, New York and Boston markets; for to this section must the East eventually turn for their supply of meat. We are well acquainted with parties who, but a few years since, started in the business of stock-raising, in Colorado, with but limited means. Now they are the owners of large herds of stock, which they have raised in that Territory without ever feeding them one pound of hay or grain.

No drought, which has been experienced in these Territories, has ever seriously affected the pasturage, owing to the peculiar qualities of the grasses indigenous to the country.

BUSHNELL.

This is another unimportant station, with side-track. Elevation, 4,860 feet. Near this station, we leave Nebraska, and enter the dominion of the young Territory of Wyoming. Although in a different territory, we find no change in the features of the country worthy of note. Bushnell is 12 miles west of Antelope.

PINE BLUFFS.

Ten miles further west and we come to Pine Bluffs. During the building of the road, this place was known as "Rock Ranch." Considerable wood—pitch pine—is cut for the railroad in the bluffs, a few miles to the southward, from which the station derives its name. The bluffs are on the left hand side of the road, and at this point are quite high and rocky, extending very near the track. Elevation of Pine Bluff station, 5,026 feet.

FORT MORGAN.

Established in May, 1865; was abandoned in May, 1868, and its garrison transferred to Laramie. It is about 60 miles north of this station, on the North Platte River, at the Western base of what is known as Scott's Bluffs. Latitude, 40° dg. 30' min.; longitude, 27° dg.

EGBERT.

An unimportant station, 11 miles beyond the bluffs. Near this point we leave Lodge Pole creek. From this point to the source of the stream in the Black Hills, about 40 miles away, the valley presents the same general appearance until it reaches the base of the mountains. Bear, deer and wolves abound in the country around the source of the stream, and herds of antelope are scattered over the valley. At one time beavers were plenty in the creek, and a few of these interesting animals are still to be found in the lower waters of the stream, near to its junction with the Platte. This valley was once a favorite hunting ground of the Sioux and Cheyennes, who long resisted the attempts to remove them to the reservation.

HILLSDALE.

Twelve miles west of Egbert we reach Hillsdale, an unimportant station. It was named after a Mr. Hill, one of the engineer party, who was killed near this place by the Indians while he was engaged in his duty. The party were locating the present site of the road when attacked.

About 50 miles to the south is "Fremont's orchard," on the South Platte river, about 65 miles below Denver City, Colorado, and in that Territory. It was named after Col. Fremont, who discovered this point in his exploring expedition. It consists of a large grove of cottonwood trees, mostly on the south side of the river. The river here makes an abrupt bend to the north, then another to the south, cutting its way through a high range of sand hills—the third range from the Missouri river. Where the river forces its way through the bluffs, they are very high and abrupt on the south side. The two bends leave a long promontory of sand hills, the end of which is washed by the waters. At a distance, this grove of cottonwoods on the bottom land reminds one of an old orchard, such as are often seen in the Eastern States.

Leaving Hillsdale, we pass along the

bank of a small creek, dry at intervals. About 10 miles from Hillsdale, we leave the bed of the creek, and rise on to the table land, and then, if the day be a fair one, the traveler can catch the first glimpse of the Rocky Mountains, directly ahead. On the right we can catch glimpses of the Black Hills, stretching their cold, dark ruggedness far away to the right—as far as the eye can see; but the bold, black line, that dark shadow on the horizon—which will soon take tangible shape and reality—but which now seems to bar our way as as with a gloomy impenetrable barrier, is the "Great Rocky Mountain Chain," the back-bone of the American continent, though bearing different names in the Southern Hemisphere. The highest peak which can be seen rising far above that dark line, its white sides gleaming above the general darkness, is Long's Peak, one of the highest peaks on the continent. Away to the left rises Pike's Peak, its towering crest robed in snow. It is one of those mountains which rank among the loftiest. It is one of Colorado's grandest mountains, and on a fair day is plainly visible from this point, 175 miles distant. Should the air be very clear, farther away still, and more to the left, the long line of the Spanish peaks can be distinctly traced with a good glass. But while we are gazing on the newly opening scenes of mountain range and snowy peaks, the cars have glided on their way—for they have no sentiment—and we arrive at

ARCHER.

An unimportant station on the table-land; and a little farther on we enter Crow Creek valley. After passing through a series of cuts and fills, we can see the Denver Pacific R. R., on the left side. Directly ahead can be seen, for several miles, the far-famed "Magic City of the Plains;" but in less time than it takes us to tell it, the space has been passed, the puffing locomotive has ceased its angry snorts, and is stationary once more, and amid a mimic din,

brought about by two or three hackmen and twice as many hotel runners, we step from the cars into the streets of

CHEYENNE CITY.

This is the largest town between Omaha and Ogden. Trains stop here 30 minutes, it being one of the regular stations where passengers are provided with meals, for a consideration. The elevation is 6,041 feet. Distance from Omaha, 516 miles; from Sacramento, 1,260 miles; from Denver City, 110 miles. Cheyenne City is situated, properly speaking, on a broad open plain, the Crow creek, a small stream, winding around two sides of the town. The land rises slightly to the westward. To the east it stretches away for miles, apparently level, though our table of elevations shows to the contrary. The soil is composed of a gravelly formation, with an average loam deposit. The sub-soil shows volcanic matter, mixed with marine fossils, in large quantities. The streets of the town are broad and laid out at right angles with the railroad. By the census of '69 Cheyenne contains 3,000 inhabitants. The streets present a lively business appearance, and the traveler feels that he has arrived at a town of more importance and energy than any he has seen along the road.

On the fourth day of July, 1867, there was *one house* in Cheyenne, no more. At one period there were 6,000 inhabitants in the place and about the vicinity, but as the road extended westward, the floating, tide-serving portion followed the road, leaving the more permanent settlers, who have put up substantial buildings of brick and stone, wherein they are carrying on all branches of trade which mark a thriving and steadily growing city.

EARLY TIMES.

At one time Cheyenne had her share of the "roughs" and gambling hells, dance houses, wild orgies; murders by night and day were rather the rule instead of the exception. This lasted until the business men and quiet citizens

tired of such doings, and suddenly an impromptu vigilance committee appeared on the scene, and several of the most desperate characters were found swinging from the end of a rope, from some convenient elevation. Others taking the hint, which indicated they would take a rope unless they mended their ways, quietly left the city. At the present time, Cheyenne is an orderly and well governed town. The first Mayor of Cheyenne was H. M. Hook, an old pioneer, elected August 10, 1867, who was afterwards drowned in Green river, while prospecting for new silver mines.

Cheyenne is the great central distributing point and depot for the freight and travel destined for Colorado and New Mexico, and the vast country to the north. In the fall of '69, Cheyenne suffered severely by a large conflagration which destroyed a considerable portion of the business part of the town, involving a loss of half a million dollars. The inhabitants, with commendable zeal, are rebuilding, in many instances with less destructible material than before.

NEWSPAPERS.

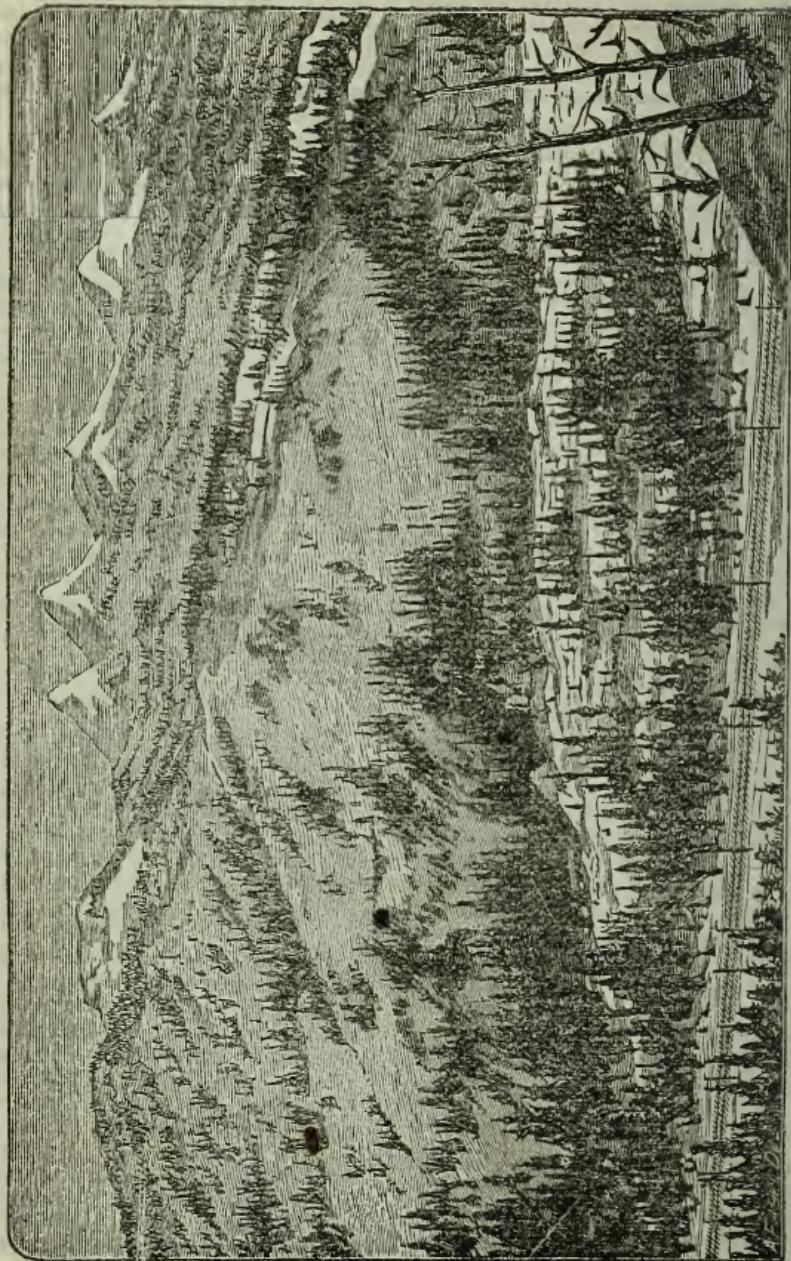
The Cheyenne *Leader*, daily and weekly; Republican in politics, was established in September, 1867; owned and edited by N. A. Baker.

The Wyoming *Tribune* is a live weekly Republican journal, and we learn they are about to issue a daily.

SCHOOLS, CHURCHES, &c.

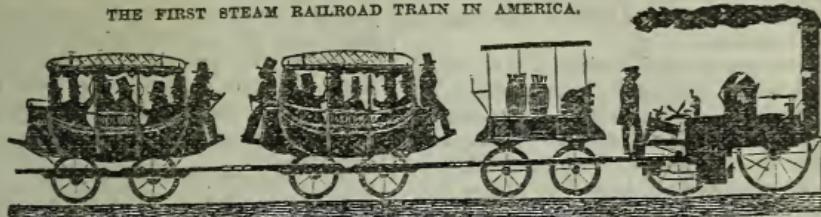
Schools and churches are established, and society is more orderly and well regulated than in many Western places of even older establishment. There are five church edifices, the Congregational, Presbyterian, Episcopal, Methodist, and Catholic. The city is watered by a ditch from Crow Creek, from whence smaller branches run along the sidewalks for the irrigation of trees and shrubbery, which will soon make the city a place of surpassing beauty.

Cheyenne has several manufactures, the usual local manufactures, such as



Summit Sierra Nevada Mountains—10,000 feet high.—C. P. B. R.—(From photograph.)

THE FIRST STEAM RAILROAD TRAIN IN AMERICA.



The above illustration was drawn and engraved from the original painting in the possession of the Connecticut Historical Society, and represents an EXCURSION TRAIN on the Mohawk and Hudson R. R. from Albany to Schenectady, N. Y., in 1831, the first steam train in America. The engine was the "John Bull," imported from England, as well as the engineer, John Hampton, "express for this road, at large expense." Her cylinder was 5½ inches, 16 inch stroke, wheels 4½ feet. Boilers had 30 copper tubes, 5 feet long, 4 inches in diameter. Connecting rods worked on double cranks on front axle. Weight of engine, complete, 4 tons. The tender represents the method of carrying the fuel—wood—in barrels, with a few sticks handy for immediate use. The cars were regular stage-coach bodies set on car-wheels. On this grand excursion "trial trip" were 16 persons, who were then thought venturesome, many of whom have filled important positions in the councils of the country since. Here is food for thought and comparison with the present day.

boots and shoes, saddlery and harness making, being carried on to some extent. The item of saddles is one of great importance on the plains.

The saddle of the plains, and of most Spanish countries, is a different article altogether from the Eastern "hog skins." When seated in his saddle, the rider fears neither fatigue nor injury to his animal. They are made for use—to save the animal's strength, as well as to give ease and security of seat to the rider. The best now in use is made with what is known as the "California Tree."

DRESSING OF PRECIOUS GEMS.

From the time the hardy miner first discovered the yellow metal in the wilds of California, the art has been practiced in a rude way in all the mining localities. The lucky miner, who found a "chispa" of more than ordinary beauty, would send it to the dear ones at home," in its crude state, if he were devoid of mechanical ingenuity or knowledge. On the other hand, if he possessed any knowledge of tools, and often when he did not, he would pass his spare hours in hammering out a ring, cross, or some other ornament. Rude and rough the conception and workmanship of the trifle undoubtedly, but it was still as dearly prized, aye, it was of *far more value* to those who received it, than though it possessed the exquisite finish of the finest

specimens of the art. And as rare and costly gems were occasionally found, they, too, were incorporated among the presents sent to absent friends, and ere long the diamond, emerald and moss agate began to attract the attention of the best jewelry houses in the world.

The manufacture of moss agate jewelry has grown into an extensive trade, since it has been discovered that this beautiful stone can be procured in large quantities in Wyoming Territory. [At Church Buttes and Millerville they are found in greater quantities and of better quality than those which are gathered elsewhere.] Of the most beautiful and variegated shades of coloring—of very hard, close and fine grain, they receive a brilliant polish under the hand of the skillful lapidary, and when mounted in the rich setting of California or Colorado gold, they form as rich and tasteful ornaments as can be produced from the shops of either the old or new world.

Ten or twelve of the most experienced workmen are employed here by one firm, whose address will be found under the head of "Moss Agates," in our "Special Department."

TRADE, BANKS, HOTELS, ETC.

There are several wholesale houses in the town doing a large and steadily increasing business with the towns to the westward, along the line, and in the

adjacent Territory. There are two banks in Cheyenne, both of which are doing a good business.

There are several hotels, the chief of which is the Railroad House, owned by the R. R. Co., before which the cars stop for dinner from the East and West. The house is in charge of our old friend, Jones—who has not heard of “Jones”?—who serves up all the substantials and most of the delicacies of the season. Don’t fail to see Jones!

Cheyenne has her theatre and museum, swimming baths and beer gardens. McDaniel’s theatre is a snug little place, very well supplied with scenery, sufficient for the rendering of small, light pieces, and will seat 250 or 300 people. There is also quite a menagerie connected with the place.

COMPANY SHOPS.

The company buildings are of stone, brought from Granite Canyon. They consist of a round house of 20 stalls, and machine and repair shop. The freight office and depot buildings are of wood, and fine structures. The freight office was opened for business during the first part of November, ’67, at which time the road was completed to this station.

AGRICULTURE.

But little land is cultivated around this place. A few small gardens on the bottom lands of Crow creek are all the evidences of this branch of industry which we observed. The soil is good, and the hardest kinds of vegetables and grains could be raised successfully with irrigation. Grazing is the main feature of the country, and to that the attention of the people is turned, to the exclusion of other business.

MINES.

Several mining companies have been incorporated in the city, for the purpose of working various mines. But we cannot learn that anything has been accomplished. Iron Mountain, 35 miles north, on the Chugwater, it is said, contains very rich iron ore—almost pure. The

company controlling this mine once projected a railroad from Cheyenne to the mine, and the erection of smelting works in the city for working the ores, but very little has been done—except talk. Come, gentlemen, *wake up*, and organize a “narrow gauge.”

FORT D. A. RUSSELL.

Established July 31, 1867, by General Augur; is intended to accommodate 16 companies. The post is situated three miles from Cheyenne, on Crow creek, which washes two sides of the enclosure. Latitude 41 deg. 08 min., longitude 104 deg. 45 min. It is connected by side-track with the U. P. R. R. at Cheyenne. The quartermaster’s department—12 store-houses—is located between the fort and the town, at “Camp Carling.” Several million pounds of Government stores are gathered here, from which the forts to the northwest draw their supplies. The reservation on which the fort is situated was declared by the President, June 28th, 1869; 4,512 acres.

FORT LARAMIE.

This fort was established Aug. 12th, 1849, by Major W. F. Sanderson, Mounted Rifles. The place, once a trading post of the Northwestern Fur Company, was purchased by the Government, through Brice Husband, the company’s agent, for the site of a military post. It was at one time the winter quarters of many trappers and hunters. It is also noted as being the place where several treaties have been made between the savages and whites—many of the former living around the fort, fed by Government, and stealing its stock in return. The reservation declared by the President on the 28th of June, 1869, consists of 54 square miles. It is situated 89 miles from Cheyenne—the nearest railroad station—on the left bank of the Laramie, about two miles from its junction with the North Platte, and on the Overland Road to Oregon and California.

The only regular conveyance to the Post is by Government mail ambu-

ance from Cheyenne. Latitude 42 deg. 2 min. 38 sec., longitude 104 deg. 31 min. 26 sec.

FORT FETTERMAN.

This post was named in honor of Brevet Lieutenant-Col. Wm. J. Fetterman, Captain 18th Infantry, killed at the Fort Phil. Kearney massacre, December 21st, 1866. Established July 19th, 1867, by our companies of the Fourth Infantry, under command of Brevet Colonel William McE. Dye, Major Fourth Infantry. It is situated at the mouth of La Poole Creek, on the South side of the North Platte river, 135 miles from Cheyenne, 10 miles south of Fort Reno, and 70 miles northwesterly from Fort Laramie. Latitude 42 deg. 49 min. 08 sec., longitude 105 deg. 27 min. 03 sec. The reservation of sixty square miles was declared June 28th, 1869. Cheyenne is the nearest railroad station.

FORT CASPER.

was situated on the North Platte river, at what was known as "Old Platte Bridge," on the Overland Road to California and Oregon, 55 miles north of Fort Fetterman: was built during the late war; rebuilt by the 18th Infantry in 1866, and abandoned in 1867, and its garrison, munitions of war, etc., were transferred to Fort Fetterman. The bridge across the Platte at this place cost \$65,000—a wooden structure, which was destroyed by the Indians shortly after the abandonment of the post.

FORT RENO

was established during the war by General E. P. Connor, for the protection of the Powder river country. It was situated on the Powder river, 225 miles from Cheyenne and 90 miles from Fort Fetterman, and 65 miles from Fort Phil. Kearney. It was rebuilt in '66 by the 18th Infantry, and abandoned in July, 1868.

FORT PHIL. KEARNEY

was established July, 1866, by four companies of the 18th Infantry, under command of Colonel H. B. Carrington, 18th Infantry. This post was situated 290

miles north of Cheyenne, in the very heart of the hunting grounds of the northern Indians, and hence the trouble the troops had with the Indians in establishing it. Near this post is where the great massacre took place in 1866. It was also abandoned in July, 1868.

FORT C. F. SMITH

was established in 1866, by Brevet Lieutenant-Colonel N. C. Kinney, Captain 18th Infantry, and two companies of that regiment. It was at the foot of the Big Horn Mountain, on the Big Horn river, 90 miles from Fort Phil. Kearney, and 380 from Cheyenne. It was abandoned in July, 1868.

LEAVING CHEYENNE FOR DENVER.

In connection with Cheyenne, we have spoken of the Denver Pacific Railroad, which terminates at this point. Here travellers for the South will change cars and take the Denver Pacific Railroad for Denver, Golden City, Central City, Santa Fé, and all points in Colorado and New Mexico. We will now proceed to give a short view of this road, Colorado and its towns and resources, for the benefit of those who are about to visit this land for the first time—commencing with the

Denver Pacific Railroad.

In the fall of 1867, this company was organized at Denver City, Colorado Territory, the object of which was to connect that city by rail and telegraph lines with the Union Pacific Railroad at Cheyenne. The distance to be overcome was 106 miles, through a country possessing no serious obstacles, and many favorable inducements to the enterprise. For a part of the way, the country along and for some distance on either side of the line is a rich farming section, the remainder of the road being through the celebrated grazing lands extending southward from Cheyenne. The desire to open up this rich region, to connect the city of Denver with the trans-continental railroad, by

which to afford a way for cheap and fast freight and rapid transit of passengers, induced the people of the Territory of Colorado to take hold of the scheme, when proposed, with commendable zeal and alacrity. Subscriptions for about one-fourth the amount of money required were made in a few days, and the county bonds of Arapaho county were almost unanimously voted to the amount of \$500,000, and work commenced.

The road was completed to Evans early in the fall of 1869, and to Denver the 24th day of June, 1870.

During this spring [1872] this road was sold to the Kansas Pacific Railroad Company, which enables the K. P. R. R. to control a through line from Kansas City, Mo., to Cheyenne. Distance, 743 miles, where a junction is made with the Union Pacific Railroad.

The original route proposed for the Kansas Pacific Railroad was to commence at Kansas City, in the great bend of the Missouri; thence westward *via* Fort Lyon, on the Arkansas river, through New Mexico and Arizona to San Diego, on the Pacific Ocean; thence along the coast to San Francisco. Whether it is to be completed or not remains to be seen.

The stations on the D. P. R. R. are: Summit, 10 miles; Carr, 21; Pierce, 41; Greeley, 55; Evans, 59; Johnson, 75; Hughes, 89; Denver, 106.

The first town of note on the line is

GREELEY.

This town was laid out in May, 1870, by the Greeley colony, under the fostering care of the Hon. Horace Greeley of the New York *Tribune*. The colony control about 100,000 acres of as fine land as can be found in the Territory. Extensive irrigating ditches have been "taken out," and water from the Cache-la-Poudre river furnishes ample water for all purposes. This town has increased rapidly, and is now said to contain nearly 1,500 population, with ample churches, hotel, schools, etc., etc. The *Greeley Tribune*, a weekly, is published here. One noted feature of the place is the absence of all intoxicating drinks,

EVANS.

This town is the county-seat of Weld county, 59 miles from Cheyenne, on the South Platte river. It is now the headquarters of the St. Louis Western colony and the New England colony of Boston, Mass., which control about 60,000 acres of land. The place contains a population of about 500. The *Journal*, a weekly paper, is published here.

DENVER CITY.

This city is the county-seat of Arapaho county, and the capital of the Territory. It is situated on the Platte river, at the junction of Cherry Creek, 6,000 feet above the level of the sea, 13 miles from the eastern base of the mountains, which protect it from the cold winds of the winter. The mountains extend north and south as far as the eye can trace their rugged height. The highest points, Long's Peak, to the north, and Pike's Peak, to the south, are in full view, towering far above the tops of the surrounding mountains. An open, rolling country surrounds the city, being the outer border of that immense plain which stretches away to the waters of the Missouri river, 600 miles to the eastward. Denver is built up principally with brick, produced near the city, of the best quality. The population has nearly doubled within the last three years, and is now over 10,000. It has 8 churches, 2 seminaries, and ample common schools, 4 Masonic and 4 Odd Fellow Lodges. It has 4 daily newspapers, 3 weeklies, and 2 monthly publications; 31 hotels, 4 banks, a United States mint, and 5 railroad lines, with water-works, gas-works, horse railroads; in fact, all the "modern improvements." The principal hotels are the American, Tremont, Sargent, and Broadwell. What cannot be found in Denver, you need not hunt for in the West.

The Ford Park Association have a race track about two miles northeast of the city; it is handsomely enclosed, and kept in good repair. On every afternoon the fast horses of Denver and their

fast drivers can be seen enjoying the smooth track at 2:40 speed.

The State Agricultural Society has 40 acres of ground adjoining Denver, where stalls, etc., have been erected for the accommodation of animals at the annual fairs. A half-mile race track is laid out, and the buildings and land enclosed with a concrete wall, the whole costing about \$10,000.

NEWSPAPERS

are what every one wants first, so we give a list of those published here.

The *Rocky Mountain News*, Republican, daily and weekly, is the oldest paper in the Territory, established in '59; *Colorado Tribune*, a Republican, daily, semi-weekly, and weekly; the *City Item*, daily; *Times*, daily; *Rocky Mountain Herald*, weekly, Democratic; *Rocky Mountain Presbyterian*, weekly; *Real Estate Register*, monthly and *Colorado Monthly*. These are a credit to any community, and we think, by the way, that Colorado has more and better newspapers, according to her age and population, than can be found in any other part of our commonwealth.

THE BOARD OF TRADE.

This institution was organized in Denver in 1867, representing the business men of the city, specially to build the Denver Pacific R. R., which it accomplished. It has taken the lead since, however, in all public enterprises, and has been very instrumental in promoting the growth and prosperity of the city. This body very kindly endorsed the writer's plan for a narrow-gauge railroad to the mines, which he advocated strongly, and which was presented to them in the winter of 1867. They said it was a "good thing"—with a pat on the back—but they went ahead with their broad-gauge roads, and some of the members, a few days after our plan was made known, organized the Denver, South Park, and Rio Grande R. R., and never said "Crofutt" once.

EMIGRANTS, on the plains, are called by the older settlers "pilgrims."

NARROW-GAUGE RAILROADS.

We contend this is the only system of railroads applicable to a rough, mountainous country like Colorado. A narrow track and light cars can wind in and out among the ravines, hills, and gulches where it would be unprofitable or almost impossible to build a large iron road. The almost inexhaustible supplies of timber, the copper ores, the lime-rock and stone quarries, the immense deposits of coal, will, in time, be in great demand—all of which could be transported in this manner cheaper by half than by any other mode of transportation, thus rendering the narrow gauge, when completed, a most profitable investment to the owners, as well as a benefit to the people at large.

Another great item in regard to this style of road should be considered. The people of Colorado can build the roads themselves, and retain the cost of their construction and the profits arising from working them in their own country, among their own people. Time and circumstances will yet make this system of roads a public necessity.

It is worthy of serious consideration on the part of those interested in the internal improvements of their country, that the benefits accruing therefrom shall belong to themselves as far as possible, and not to be taken from the country to pay interest on or the principal of foreign capital. The citizens of a State should always control a State's improvement, thereby preventing monopolies from ruling or oppressing them.

When the immense bodies of refractory ores can be cheaply moved from the mines to the valley on their way East for working, or can be moved to furnaces in the valley, or the coal and wood necessary in smelting can be moved to the mines, which cannot be done now, owing to the expense of transportation by freight-teams—then, and not until then, will the people of Colorado appreciate the narrow-gauge system.

Already narrow-gauge roads are pro-

jected to almost every mine or old stock ranch in the Territory.

THE DENVER AND RIO GRANDE R. R., a three feet gauge, has been completed for near 100 miles south, towards Santa Fé, New Mexico, via Colorado City, or, as now called,

COLORADO SPRINGS,

seventy-six miles south of Denver, at the base of the famous "Pike's Peak." Population, 500. This city was the first one settled in the Territory (1858). It is situated on Fountain *Qui la Bonille*, a small stream, formed from springs and melting snows around the base and upon the summits of the mountain. The latest improvement is a weekly newspaper, *Out West*.

The country adjacent is fine farming land, and many large droves of horses and cattle, as well as herds of sheep, are kept in this section. When the accommodations are sufficient to entice travelers to remain in the place, it will doubtless become a favorite summer resort for travelers.

Near the base of the Pike's Peak, about three miles west from the old town, in as romantic a little nook as one could conceive, are situated the

SODA SPRINGS.

It is claimed these springs possess medicinal qualities. We don't know how that is, but we do know that the waters, with a little acid, made good bread in 1869, and it is very pleasant to drink. Even cattle will come for many miles to drink the waters.

A late analysis of the waters gives the following : Carbonate of lime, 92·25 ; carbonate of magnesia, 1·21 ; sulphate of lime, chloride of calcium, and chloride of magnesia, 23 ; silica, 1·50 ; vegetable matter, 20 ; moisture and loss, 4·60.

THE GARDEN OF THE GODS,

About $1\frac{1}{2}$ miles west is a singularly wild and beautiful place, to which some poetic individual has given the title which heads this paragraph. Several rocks, or rather two high ridges of rock, rise perpendicularly from the val-

ley to the height of 200 feet or more, but a few yards apart, forming a lofty enclosure, which embraces a beautiful miniature valley, which seems to nestle here away from the gaze of the passer-by, as though, like some timid damsel, it feared that its beauty would prove its destruction. Such has been its fate, as we are told that some unpoetical heathen has plowed up its virgin bosom and planted it with beets. There is little poetry in the heart when the stomach is empty.

Rich farming lands extend in one unbroken range to

PUEBLO CITY,

on the Arkansas river, 160 miles south from Denver, and from thence in every direction. Connected by Rio Grande Railroad, the town is situated near the junction of the Fountain *Qui la Bonille* with the Arkansas and stage lines, east, south, and west. It contains about 1,000 inhabitants, has good schools, churches, and hotels. The two principal hotels are the Valley House and Planters' House. The Colorado *Chieftain* is published here.

Pueblo is the center of the richest agricultural district in the Territory. Thousands of sheep and cattle are fed on this range, and along the river farming is carried on with success and on a large scale.

The fine water-power available, and these broad, fertile plains and productive uplands, on which roam so many thousand sheep, point to the probable fact that woolen manufactories will soon be established here. The citizens of Pueblo cannot afford to send their wool to a foreign market, when they have every requisite for manufacturing it at home. If wool buyers can afford to purchase their wools, and freight them long distances, and then manufacture them at a profit, surely the citizens could manufacture them at home by their own machinery, for the item of freight would pay the difference in the price of labor.

Colorado Territory has advantages

which, if improved, will render her the great wool-producing country of the Union.

Returning to Denver, we take the Colorado Central Railroad for

GOLDEN.

This "Lowell" of Colorado is situated 13 miles west of Denver, on Clear Creek, near where it debouches from the eastern base of the Rocky Mountains. The town contains about 1,000 inhabitants, a pottery, and paper mill—the only ones in the Territory; also, flour and saw mills, and a great many other manufactories. The place is well supplied with schools, churches, etc. The *Colorado Transcript* is published here by George West, a pioneer of the early days of the Territory. The Tremont House and Johnson House are the principal hotels. Some quartz mines are found here, and the whole section is underlaid with coal mines of good quality, which are successfully worked.

A narrow-gauge railroad is now in progress up Clear Creek canyon, through the rich silver and gold mining districts of Gilpin and Clear Creek counties, in which are located the cities of Central, Black Hawk, Georgetown, Idaho, and Empire. Stages leave Golden City daily, on arrival of the cars, for all the above cities and the mountain towns generally.

Clear Creek rises about 60 miles from the city, emptying its waters into the Platte four miles below Denver. The stream affords great natural advantages for manufactories, the water power being unlimited, and mill sites numerous.

BLACK HAWK AND CENTRAL CITY.

These towns are in Gilpin County, lying about two miles from each other, on Gregory's Gulch, and really constitute one town, although possessing two distinct organizations and governments. They are connected by stage with Colorado Central R. R., and situated about 38 miles west from Denver, and contain, in the aggregate, from 7,000 to 8,000 inhabitants. The towns have

numerous quartz mills thundering away night and day, besides several smelting furnaces. There are many good public buildings, schools, churches, and hotels. The principal hotels are the Mountain House, Black Hawk; St. Nicholas and Connor House, Central City. The Central City *Register*, daily, Republican, and the *Daily Colorado Herald*, Democratic, are published here.

The principal business of the place consists in mining, this being claimed as the chief gold-mining town in Colorado. It was the first mining camp established. W. N. Byers pitched his tent here in '58 or '59. An immense number of rich quartz veins crop out in every direction, and with successful milling these veins or lodes must yield an enormous revenue. As yet the country is hardly prospected, owing to the fact that mill facilities are not such as to encourage it. The great want of Colorado is a desulphurizing process, by which the refractory ores can be worked, and the metal obtained from the rock without the great waste which has accompanied the usual method of working heretofore.

IDAHO CITY AND MINERAL SPRINGS.

About 22 miles from Golden, via Mount Vernon, we come to Idaho City, situated at the mouth of Virginia canyon. The town contains about 500 inhabitants. It is celebrated for its mineral springs, which are in the heart of the city. A hotel and bath-house are connected with the springs, which are becoming a noted summer resort. There are three others in the town, which, with the former named, afford ample accommodation for the traveler. The waters are highly recommended for various diseases, especially chronic cases of long standing.

GEORGETOWN.

This town is situated in Clear Creek county, in the center of the famous silver mines of Colorado, at the base of the Snowy Range, about 8,000 feet above the level of the sea. It is distant from



WASH-A-KIE, Peace Chief of the Shoshone Indians.
(From photograph by Savage & Otinger, Salt Lake City.)

Denver about 50 miles to the westward. The city contains about 1,500 inhabitants, and is well supplied with schools, churches, and hotels—the two principal of the last-named institutions being the Barton and the Leggett Houses. The Georgetown *Miner*, a lively newspaper, is published here. Grey's Peak, just above the town, is 14,500 feet high.

The silver mines around this place are simply wonderful in their number, magnitude, and richness. But some other than the ordinary mill process, or yet the furnace process now in use, must be discovered, before many of the lodes can be worked to advantage, on account of the refractory character of much of the ore. Not but what the mines pay with the present process, but still not more than half, and often not more than a third or fourth, of the silver contained in the rock is saved, which entails a severe loss on the miner. Large amounts of ore are being shipped from these mines to England for smelting, and several smelting furnaces have been erected since we last wrote about this section.

We would like to give a description of Longmont, Boulder, Canyon City, and many other thriving towns, but our space will not admit of it at present. We will now take hasty glances at the general features of

COLORADO TERRITORY.

It is not our purpose to enter into a very minute description of this remarkable country. Volumes would not suffice to do justice to the Territory; her vast resources; her mines of gold, silver, iron, coal, and copper; her rich and fertile valleys; her broad plains, on which roam thousands of cattle, sheep, and horses; her vast agricultural resources; her dense forests and lofty mountains; her genial climate and whole-souled people, cannot be described in one small volume with any degree of accuracy or justice; in fact, they cannot be described at all, they must be seen to be appreciated, and the reader of any work treating on Colorado must live among her hardy,

hospitable people before he or she can understand them or comprehend their real character.

Colorado, once, by bill passed by Congress, became a State, had the President but ratified the act. But President Johnson vetoed the bill.

The Territory contains about 110,000 square miles, and, according to the census of 1870, 39,864 population.

The climate is dry and very healthy, the Territory being unsurpassed in this respect. Diseases common in the older States are unknown here. Pulmonary complaints are either eradicated from the system of invalids who resort to this country, or the disease becomes so modified that the sufferer enjoys a marked improvement in his condition.

PRECIOUS STONES.

The following are among the minerals and precious stones found in Colorado: Moss agates, chiefly in Middle Park; amethyst, at Nevada, Mill City, and on Soda Creek; chalcedony, in South Park; feldspar, near Idaho and on Elk Creek; garnet, in South Park and about Breckinridge; jasper, in South and Middle Parks; mica, near Georgetown and Genesee Ranch; opal, near Idaho and in South Park; onyx, near Willow Creek, in Middle Park; quartz crystals, at many points; satin spar, near Mount Vernon; silicified wood, in Middle and South Parks, on Cherry Creek, the Platte, and Kiowa.

AGRICULTURE.

The report of the Agricultural Society of Colorado shows that stock-raising is carried on to a great extent, and with very flattering results.

Oats, barley, and corn give handsome returns. Wheat is said to yield as high as 40 bushels to the acre.

No State in the Union, California ex-

THE first half of a wagon train is called the "right wing," the other half the "left wing." In forming a corral, the wagons of the right wing form a half circle on the right hand side of the road, hauled close together, teams on the outside; the left wing form on the left side in the same manner, leaving a passage-way open at the front and rear ends of each wing, called "gaps."

cepted, can excel Colorado in the production of vegetables. Owing to the dryness of the black loam, irrigation is necessary to secure good crops, for which purpose ditches have been dug from the neighboring streams, which afford all the water required. These ditches also afford ample water power for mills of various kinds.

THE MINING INTEREST OF COLORADO.

Colorado is rich in the precious metals, gold and silver being found in different parts of the Territory. "Pike's Peak" became famous in 1859-60, though it is said that gold was discovered in '49 in the Territory. The placer mines were never very extensive, at least, those which have been discovered were not lasting ones. It appears that the chief wealth of the mines lies in the gold and silver-bearing quartz lodes. In some localities the rock is very easily worked, but in others the ore is very refractory, requiring desulphurizing before much of the precious metal can be obtained by mill process. Several companies have tried the experiment of roasting the ores in furnaces of their own invention, the expense of which came from the miners' pockets. Most, if not all, these experiments have proved failures; the furnaces desulphurizing only a portion of the ore.

COAL FIELDS AND IRON ORE.

Along the base of the mountains, for many miles north and south of Denver, coal has been discovered at various points. Many persons estimate the extent of the coal fields at 5,000 square miles. To the north of the city several companies have opened mines, which are worked enough to supply home consumption.

The veins of these mines are from five to 19 feet thick. At one point eleven veins overlap each other, showing an aggregate depth of fifty feet solid coal.

The Denver Pacific R. R. passes within 12 miles of these coal fields, which are now being worked, and within a mile and a half of a vein, six feet thick. The proposed Coal Creek Valley R. R.

will connect these mines with the Denver Pacific R. R. when completed.

Large quantities of iron ore are found, and, in connection with the coal deposits, promise a rich harvest for the manufacturer. This coal is bituminous, and is harder, brighter, less dirty and odorous, burns with a purer flame, and leaves less residue than the coal from Illinois. It will eventually constitute one of the great sources of the wealth of this remarkable country. Iron ore is found in various localities, of good quality and in large quantities. The manufacture of iron cannot long remain in the background, when coal in such quantities and plenty of excellent iron ore can be obtained at the mere expense of mining.

MOUNTAINS AND PEAKS OF COLORADO.

The grandest mountains in North America are found in this Territory. They raise their snow-clad peaks far above their compeers, rising proudly and defiantly into the clear blue sky; their gray sides and white crests being visible through this clear atmosphere for many, many miles.

In the pure air of this country objects like these are visible for a great distance, so great, indeed, that were it named, those who have never been in these regions would at once deny the statement; that's nothing, however, if they should deny it, for we have known some men who denied their country, and many who denied their—wives. But that is foreign to the subject, and has no connection with the mountains of Colorado.

Long's Peak and Pike's Peak are over 14,000 feet above the level of the sea. Grey's Peaks, the highest point yet explored in the Territory, are 14,300 and 14,500 feet high. They were named for the celebrated Cambridge botanist. There are other peaks less high, but none the less grand and majestic. The Alps, storied monuments of poetical, legendary fame, cannot compare with these mountains in scenes of sublime beauty and awful grandeur. Here, all of the vast scene is before you, the pure

air bringing the distant mountains within your vision, as though anxious that the whole grand beauty of the scene should be visible at one and the same time. The mind drinks in the inspiration of the glorious vision at one draught, and filled with awe, wonder and admiration, the bounding heart almost stands still, while the eager eyes gaze on the grandest panorama in nature. From the top of Grey's Peaks, either of them, a morning scene of glorious beauty is unfolded, such as one rarely sees in any clime, for nature, in her wildest moods, has never excelled her handiwork here, a panoramic view of which now lies before us. European travelers tell us that nowhere within the range of European travel can such scenes be found—scenes so full of beauty, sublimity and inspiration.

Nowhere on the old continent do we ascend so high; from no point is the view so wide and comprehensive. From Alpine summits, the tourist's gaze extends over one petty province to rest upon another. Here, the eye fails to reach the extent of even one portion of our country, and the far distant horizon closes in the scene, by dropping an airy curtain, whose fleecy fringes rest on mountain peaks and vast plains, in far distant portions of the same fair land.

THE BACK BONE OF THE AMERICAN CONTINENT.

From one side of the summit, the waters of a quiet, little spring, ripple softly away, as though afraid to venture on the vast distance which lies between them and the waters of the Atlantic Ocean, their final destination. On the other side of the crest the scene is repeated, with this difference, that the waters stealing away through beds of tiny, delicately tinted, mountain flowers, are destined to reach the Pacific Ocean, on the other side of the continent. So close together in their infancy, so far apart in their prime, or at their final grave, the ocean. This point is the apex, the center of the North American

Continent, the crowning peak of that great back-bone, whose iron ribs are represented by the many spurs that branch away in earnest support of the whole grand system.

From this point, range on range, gorge after gorge, can be seen, interspersed with rugged peaks, which lend a peculiar wildness to the scene. Away to the east, lies the vast, grayish expanse of the plains, looking like some great ocean, its breast unstirred by the passing breeze, or rippled by a single prow. Nearer, still, among the bordering mountains, nestling in the hollows and between the brown heights, lie miniature prairies, patches of green, on which the rays of the morning sun fall in folds of yellow light, enveloping them in a flood of golden beauty. Small, and insignificant as they appear, when compared with the vast sea of plains beyond, they are really large valleys, in which are found the farming lands of Colorado.

THE PARKS.

These little valleys, as seen from the mountain tops, prove, on entering them, to be both wide and long. They consist of the North, Middle, San Luis, and South Parks, which lie along, on either side, of the line of Central Colorado. Each is a great central park or valley in itself, shut out from its neighbor by dividing ranges of rugged hills, the only entrances being along the numerous water courses, which have their origin in the valleys and cut their way through the surrounding mountains in their passage to the sea. The extent of these parks vary, the largest being about 80 miles long, with an average width of 40 miles. The smallest of the number will not exceed 40 miles in length, with a width of about 15 miles. Some of these lie on the Atlantic side of the "back-bone," while some rest on the Pacific side, their altitude being from 7,000 to 10,000 feet. They are, in fact, great upland basins, the reservoirs of the debris, which, for centuries, have washed down the mountain sides. Their soil is fertile, yielding wild grasses in abun-

dance, furnishing food for vast herds of sheep and cattle.

In Europe or New England, were such plains found at such an altitude and in similar latitude, they would be worthless, barren wastes—probably regions of perpetual ice and snow; but here grains and vegetables are successfully cultivated, and cattle graze the year round at the height of 7,000 feet, while those valleys which lie between this altitude and that of the highest—10,000 feet—and including those, also, afford excellent summer pasturage and great crops of natural grass, which is cured for hay and exported.

These great fertile areas constitute one of the great resources of the Territory—an unbounded field of wealth which requires no expensive machinery to develop. When these plains shall have been stocked and settled—when the golden grain shall wave in the morning breeze around the home of the pioneer—when these lands shall have been divided up and peopled—a new era of wealth and prosperity will dawn on Colorado—an era of steadily increasing and permanent progress, such as mines can never give.

With this sketch of Colorado, short and imperfect, because it is impossible to do justice to this country, we take our leave of it, and return to Cheyenne, where we start once more for the West. We shall soon be rising up among the Black Hills, which are stretching far away in a long, rugged line before us. Soon we cross Crow creek on a Howe truss bridge, one of the best on the line. We leave the creek and follow up the bed of a small, dry ravine. Now we have a fine view of Fort Davy Russell, of which we have spoken. Soon we arrive at

HAZARD STATION,

Seven miles from Cheyenne. Here, the traveler going East can obtain a fine view of Cheyenne and Fort Davy Russell, which lie directly ahead of his train. Elevation, 6,825 feet.

OTTO.

Eight miles farther on we arrive at Otto, a side-track station. We are now 6,724 feet above the sea, and the traveler should note the rapid rise made from this point, in surmounting the Black Hills. Here the heavy grading commences.

To the north of this place, at the base of the hills, is a fine valley. Here Crow creek finds its source in many fine springs. The valley contains very superior grazing land and, in conjunction with the adjacent hills, affords ample game for the hunter.

Fifteen miles from this station, to the north, at the eastern entrance of Cheyenne Pass, is the site of old Fort Walbach, now deserted. Near this fort is the head waters of Lodge Pole creek.

GRANITE CANYON.

Five miles beyond Otto. Elevation, 7,298 feet. At this point is extensive stone quarries, whence was taken the rock for the company's buildings in Cheyenne, also for the stone warehouses. Limestone abounds in this vicinity, and many kilns have been erected. To the left of the road, and down the canyon a few hundred yards, is a fine spring from whence the water is elevated to the tank by the road side. Half a mile to the south is the head waters of Lone Tree creek, a tributary of the South Platte river. Along the road now is heavy rock work, and on the exposed portions of the road may be seen the snow fences, built of plank or stone. Crossing the head of the canyon, we reach

BUFORD,

A side-track station, six miles farther west. Elevation, 7,298 feet. Heavy rock work, and snow sheds and fences mark the road. Much wood is stored here, hauled from the canyons in the surrounding hills.

The country here presents a wild, rugged and grand appearance. The level ground or little valleys are covered with a fine coat of grass, and now and then

clumps of stunted pine appear by the road side. On either hand, near by, high bold masses of granite rear their gray sides, piled one on the other in wild confusion. The scene is peculiarly impressive as we near Sherman, especially if it chance to be one of those days when the clouds float low down the horizon: then the traveler looks over the intervening space between him and the mountain range beyond, and sees naught but floating masses of vapor; no mountains, no valley, no forest, only these fleecy shapes, and a long dark line rising above them, o'ertopped by the glistening sides of Long's Peak. The altitude gained, we seem to move along a level plain, covered with grass, rocks and shrubs, until we reach

SHERMAN,

Eight thousand two hundred and forty-two feet above the level of the sea. It is named in honor of General Sherman the tallest general in the service. This station is 549 miles from Omaha and 1,365 from San Francisco. The maximum grade from Cheyenne to Sherman is 88.176 per mile. Seventy-five miles to the southwest is Long's Peak.

To the south, 165 miles away, is Pike's Peak, both plainly visible. To the northwest, about 100 miles distant, is Elk Mountain, another noted landmark. Fine springs of water abound in almost every ravine. This is a noted point for game, black and cinnamon bears being found in the hills, and occasionally, "mountain lions."

COMPANY SHOPS, STATION, TOWN &c.

At this point the company has a stone round house of five stalls, for repairs. The trains stop here, though, but a few minutes. It is merely a telegraph and freight station. About 25 houses of logs and boards constitute the town. One store, two hotels and two saloons make up the business portion of the town. The freight taken on at this station for the East and West, is very extensive, consisting of sawed lumber, telegraph poles and wood obtained in the hills and ravines but a few miles distant.

These hills are covered in sections with a dense growth of hard, spruce pine, which, as to quality, and adaptability for being dressed, resembles the hemlock of the Eastern States. The timber is not of large growth, judging from the piles of sawed lumber which we observed. We found no board over 20 inches wide, and the lumber had been sawed as wide as the log would allow. This country contains an almost inexhaustible supply of timber, and for years to come, the country east of Sherman will draw its supplies from this point. Years must elapse ere the railroad company can exhaust the wood growing within easy distance of the station. For many miles away the hills extend, every ravine and slope covered with a dense forest, through which roam the wild beasts, unawed by the near approach of civilization.

At this elevated point, the tourist, if his "wind is good," can spend a long time pleasantly in wandering amid some of the wildest, grandest scenes to be found on the continent. There are places where the rocks rise higher, where the chasms are far deeper, where the surrounding peaks may be loftier, and the torrents mightier in their power, and still they do not possess such power over the mind of man, as does the wild, desolate looking landscape around Sherman. Although the plateau is covered with grass, and occasional shrubs and stunted trees greet the eye, the surrounding bleakness and desolation render this place one of awful grandeur. The hand of Him who rules the universe is nowhere else more marked, and in no place which we have ever visited have we felt so utterly alone, so completely isolated from mankind, and left entirely with nature, as at Sherman, on the Black Hills of Wyoming.

At first the tourist experiences much difficulty in breathing, the extreme lightness of the air trying his lungs to their utmost capacity, but when he becomes accustomed to the change, and begins to inhale long draughts of the pure mountain air, he feels like a new man, and

begins to wonder how it came that he never tried the mountain atmosphere before.

THE WINTERS AND THE WEATHER.

The presence of snow sheds and fences by every cut induced us to inquire of a gentleman who has resided here for some time, regarding the storms, snows, weather, and the character of the winters here in general. He showed us a table, where he had recorded the weather during the winter of '68-9. From this we learned that the deepest snow which fell at this point, at any one time, or that laid on the ground at any one time during the winter and spring, was but three inches, and that fell in May. It is not the depth of snow that causes any inconvenience to the working of the road, but it is the drifting of it into the cuts during the heavy winds. For the purpose of preventing this, the sheds, fences and walls are erected along the road, the latter a few rods away from the banks, of the cuts. The fences cause an eddy or current of air, which piles the snow along in huge drifts, keeping it, in a great measure, from the track. Snow sheds cover the deepest cuts along the road, where obstructions from the snow is most likely to occur. The cold rains and deepest snows come with an east wind; the worst storms from the southwest. The coldest day of the season ('68-9), the thermometer marked 8 dg. below zero. This occurred on the 29th of January. On the warmest day recorded in January, the mercury stood at 22 dg. above zero at noon, and, at five o'clock, P. M., 20 dg. At Omaha, during the summer, the range marked was 110 dg. Fahrenheit; at this point, 82 dg.

CREEKS, STREAMS AND SPRINGS.

From among the surrounding hills several streams rise from the numerous springs, and wind their way among rocks and through gorges until they are lost in the waters of other streams. Dale creek heads six miles to the north, and empties into the Cache-a-La Poudre

river. The latter stream rises about 35 miles southwest from Sherman and empties into the south Platte.

FISH AND GAME.

Numbers of little creeks head near by, each and every one abounding in trout of the finest quality. There is no spot along the line of road which can be compared to the locality around Sherman for trout fishing. The tiniest rivulets swarm with them, and their speckled sides glisten in every eddy. They weigh from one-fourth to two pounds, and their flesh is as hard and white as that of the mountain trout of Vermont.

Antelope, elk, black-tailed deer, bear, sage hens and grouse abound in the hills and on the plateaus. The angler, hunter or tourist should never pass Sherman without pausing long enough to fly a hook and try his rifle. Doubtless this point will become a favorite summer resort for travelers, possessing, as it does, eminent attractions for hunting and fishing.

From Sherman to Rawlings the road runs between the Black Hills and the Rocky Mountain range, presenting varied and impressive scenery at various points.

Leaving Sherman, the road turns to the left, and three miles further on we reach

DALE CREEK BRIDGE,

A plated framework structure, 650 feet long, and 126 feet high, spanning Dale creek from bluff to bluff. The bridge is the grandest feature of the road. Standing on trestles, interlaced with each other, and securely corded together, it presents a light, airy and graceful appearance when viewed from the creek. [See illustration.] The beautiful little stream looks like a silver thread below us, the sun glistening its surface with a thousand flashes of silvery light. Anon, the dark walls of the canyon shade it, as though they were envious or jealous of its beauty being rendered common property. A narrow

green valley, just above the bridge, or rather a strip of green sward, on which stands one house, is the site of the former Dale City, where, at one time, were over 600 inhabitants. Here, too, as well as around Sherman, are found countless flowers of every variety and hue. Dr. Latham, surgeon of the U. P. R. R., informed us that he had classified over 300 varieties of the flowers which grow in this section and on the Laramie and Cheyenne plains.

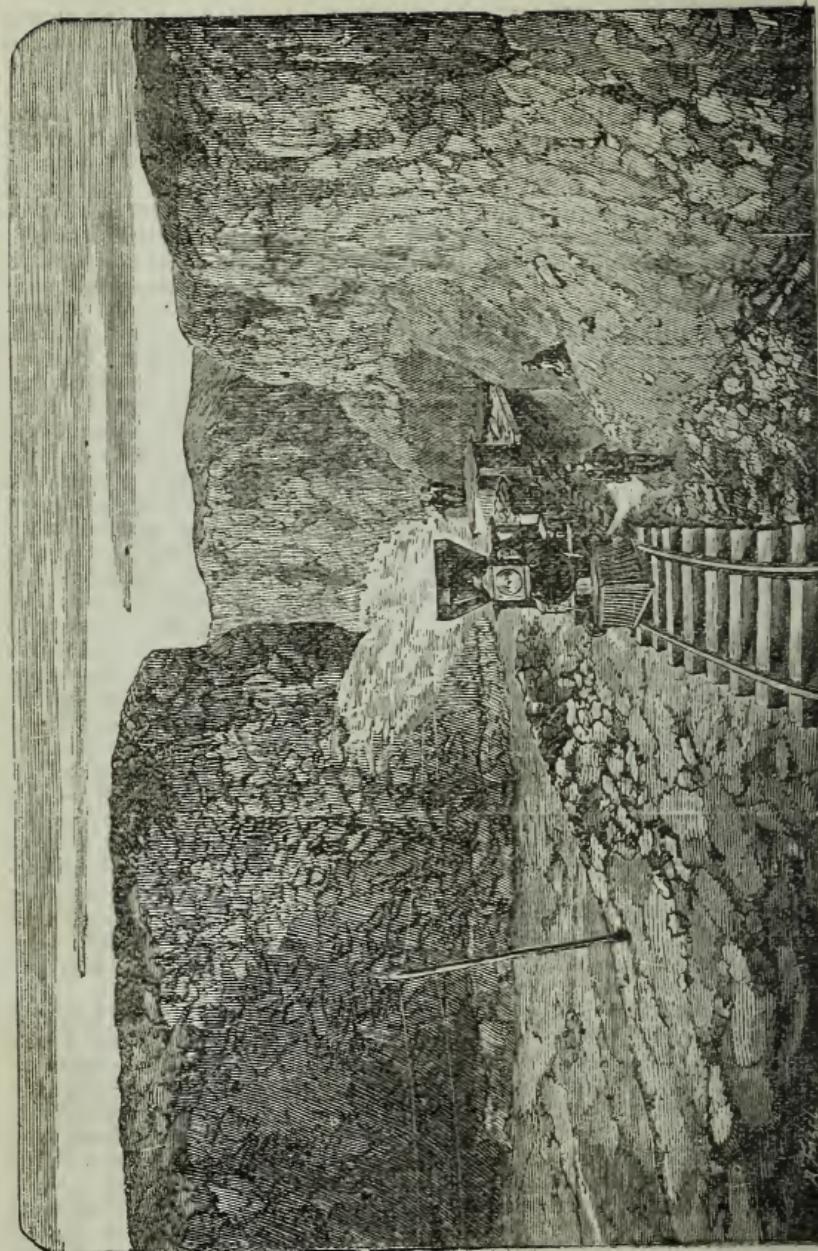
CACHE-A-LA POUDRE RIVER AND VALLEY.

Dale creek is one of the tributaries of this stream, along the banks of which lies a lovely valley nestled in a mountain range to gladden the sight of the weary traveler, or to afford a home for the industrious emigrant. Fifteen miles to the southwest of Sherman, is Virginia Dale station, which some "yellow covered novelist" has immortalized in a "blood and thunder story," wherein he entitled this station the Robber's Roost, though he disdains to inform us what they roosted on. But aside from this questionable honor, Virginia Dale station is the most widely known and celebrated of any locality in these mountains. There are a few good buildings around the place, where excursionists, who visit here to enjoy the scenery, mountain air, and rare fishing and hunting, are provided for.

The place was originally a stage station on the old Salt Lake and California road, and was laid out and kept by the notorious Jack Slade, who was division superintendent for the old C. O. C. Stage Co., from '60 to '63. It was supposed that Slade was the head of a gang of desperadoes who infested the country, running off stock from emigrants, and appropriating the same. At any rate, he was a noted desperado, having, it is said, killed 13 men. The last of his exploits was the wanton and cruel murder of Jules Burg, the person who gave his name to Julesburg. Slade had a quarrel with Jules in 1861, which ended

in a shooting scrape, wherein Slade was forced to "take water." In '63 some of the drivers on the line, friends and companions of Slade's, decoyed Jules to the Cold Spring ranch, on the North Platte river, kept at the time by old Antoine Runnels, commonly known as "the Devil's left bower." He was a great friend of Slade's, who appears to have rightfully earned the title of "right bower" to that same warm natured individual. The place where this tragedy occurred is 50 miles north of Cheyenne, and 25 miles below Fort Laramie, whither Slade repaired from Cottonwood Springs in an extra coach as soon as he was notified of the capture of his old enemy. He drove night and day, arriving at Cold Spring ranch early in the morning. On alighting from the coach, he found Jules tied to a post in the corral, in such a position as to render him perfectly helpless. Slade shot him twenty-three times, taking care not to kill him, cursing all the time in a most fearful manner, returning to the house for a "drink" between shots. While firing the first twenty-two shots, he would tell Jules just where he was going to hit him, adding that he did not intend to kill him immediately—that he intended to torture him to death. During this brutal scene, seven of Slade's friends stood by and witnessed the proceedings. Unable to provoke a cry of pain or a sign of fear from the unfortunate Jules, he thrust the pistol into his mouth, and at the twenty-third shot blew his head to pieces. Slade then cut the ears from his victim and put them in his pocket.

In the saloons of Denver City and other places he would take Jules' ears out of his pocket, throw them down on the bar, and openly boasting of the act, would demand the drinks on his bloody pledges, which were never refused him. Shortly after this exploit it became too hot for him in Colorado, and he was forced to flee. From thence he went to Virginia City, Montana, where he continued to prey upon society. The people in that country had no love for



First Construction Train passing the Palisades, C. P. R. R. (See page 140.)

his kind of people nor use for them. They captured him, after his conduct had become insupportable, and hung him, as he richly deserved, and Jack Slade's career was ended. His wife arrived at the scene of execution just in time to behold his dead body. She had ridden on horseback 30 miles for the avowed purpose of shooting Slade, to save the disgrace of having him hung, and she arrived on the scene, with revolver in hand, only a few minutes too late to execute her scheme—the desperado was dead, and he died "with his boots on."

SCENERY AROUND THE STATION AND VALLEY.

Virginia Dale is situated at the head of a deep gorge, on Dale creek, near the Cache-a-la Poudre river. On the east side of the canyon, the wall of overhanging rock rises about 600 feet high, for a mile along the stream, giving a wild and picturesque beauty, a sublimity and grandeur to the scene, rarely surpassed. This point is called the "Lover's Leap," though we never learned as any one ever leaped therefrom. If he or she did, we reckon that the jar, on alighting, in the valley, 600 feet below, must have knocked all love, romance, or sentiment out of them. In and around this place are numerous dells, grottoes, gorges, canyons, precipices, towering peaks and rugged recesses, enough to employ the tourist for some time in examining their beauties.

At this point the valley of the Cache-a-la-Poudre, a tributary of the South Platte river may be said to begin, and from here on, down the river for twenty-five or thirty miles, stretches one of the loveliest valleys in the Territory. It is thickly settled, and the settlers raise abundant crops.

While passing down the valley, we pass La Porte City, which contains about 500 inhabitants. The Spotswood House is the principal hotel. It is situated in the midst of a fine country, well cultivated and near the river. It con-

tails a hotel, stores, post office and several fine buildings.

From this point, on to Denver City, Colorado, along the banks of every stream, lie fine farming lands with deep, rich soil, abundant water, genial climate; in fact, possessing all the requisites for successful cultivation and pleasant homes. The only wonder to us is that such countries should be so long unknown and so thinly settled. In portions of this section coal fields abound—these beautiful valleys lying on the edge of the coal deposit of Colorado.

Time, that power which works such wonders, will rectify all this, and ere long homes as lovely and attractive as those to be found in the valleys of the old States, will spring up here, and the orchard, vineyard and waving grain will invite the traveler to pause and note the real wealth and matchless beauty of the country. There is room and good land enough among these mountains to provide homes for thousands of the toiling, homeless sons of the old States. Will they come and avail themselves of nature's bounty, and redeem this country from its wild state, and here build themselves homes where, at length, they will find life worth living for, or will they toil among the stumps and rocks of the East, to eke out a scanty subsistence? "*Quien sabe?*"

We now return to the railroad once more, and take up our record of the route.

HARNEY.

Side track, nine miles from Sherman. Elevation, 7,857 feet. From Sherman, no steam is needed to propel the train, for the down grade is sufficient to carry us swiftly along, under the steady guidance of the brakes, from Sherman to Laramie, as the grade averages a little over $4\frac{1}{2}$ feet to the mile. Rock work and snow fences are found doubled in many places, to protect the deep cuts. Between Harney and the next station, can be seen the old Denver and Salt Lake stage road, the telegraph marking the line for some distance along the

road to the left. We are now on the Laramie Plains, at the station of

RED BUTTES,

Elevation, 7,336—named from several ridges of red sandstone—lying between us and the Black Hills, in full view of our sight. The sandstone bluffs or hills have been washed and worn by the elements, until in places they rear their peaks from 500 to 1,000 feet above the plain, in wild fantastic shapes and grotesque figures. Rocks which, at a distance, might be taken for castles, rise side by side with the wall of an immense fort; churches rear their roofs, almost shading the lowly cottage by their side; columns, monuments and pyramids are mixed up with themselves and each other, as though some malignant power had carried off some mighty city of the olden time, and, wearying of his booty, had thrown it down upon these plains without much regard to the order in which the buildings were placed. Opposite to this station, about 50 miles away, the Laramie river rises on the eastern slope of the Medicine Bow Mountains, its source being composed of almost innumerable springs. Its general course is northeast, for 200 miles, when it empties into the North Platte river at Fort Laramie. Competent judges consider these plains and adjacent valleys as good a stock range as any in the world. On the bottoms, the wild grass grows from two to three feet high, and the bluffs are covered with luxuriant growths of bunch grass.

FORT SANDERS STATION,

By which Fort Sanders receives its supplies. Elevation, 7,163 feet.

FORT SANDERS.

This post was established June 23d, 1866, by two companies of the Third Battalion, U. S. Infantry, under command of Brevet Lieutenant-Colonel H. M. Mizner, Captain 18th Infantry. The fort is beautifully situated to the east of the road, about three miles from Laramie City, close along-side of the track, and in full view from the cars for some

miles when approaching or leaving the post. Latitude 41 deg. 13 min. 4 sec. (observation), longitude 105 deg. 40 min. (approximate.) Three miles farther on, we come to

LARAMIE CITY,

This city is the county-seat of Albany county, and from appearances has made wonderful progress during the last year. Elevation, 7,122 feet. This is a regular eating station, where passenger trains from the East and West stop 30 minutes to allow time for eating. The company, following out their general plan of buildings along their road at all important stations, have here erected a magnificent hotel, as fine as can be found along the whole length of their line; in fact, it is the largest and finest hotel of the many they have built—and is kept by those who spare no pains to make their guests feel that "it is good to live." The railroad was completed to this point on June 18, '68. Directly to the east of this place can be seen the Cheyenne Pass wagon road—the old emigrant route—which crosses the plain and river half a mile below the city, running northwest to the base of the mountains, parallel with the railroad.

Laramie City is regularly laid out, at right angles with the road. A stream of clear, cold water runs through the principal streets; the buildings are small and generally rough, after the manner of new places, but a better class of substantial, permanent structures of stone are being erected. Very few costly buildings have been erected, owing to the material of which they are constructed having to be transported so many miles by the road. The spirit of improvement is manifested, however, which during the last year has added 44 dwellings, 2 hotels, court-house, jail, 10 stores, four churches, and many other buildings valued at \$120,000. The spring, which affords ample water for the town, is very large, and lies at the foot of the Black Hills, a few miles to the East.

The *Sentinel*—a live daily—is published here; also a weekly, the *Independent*, just started.

The city has 7 churches, and ample school accommodations.

COMPANY'S SHOPS.

These buildings are of stone, which was obtained from Rock creek, 50 miles distant to the northward. The round house contains 20 stalls. The machine shop is 75x125 feet, used for general repairing. The depot buildings are of wood. All the necessary machinery of first-class shops is in operation here. The supply of coal is obtained about 75 miles west, though good coal beds have now been discovered within 30 miles.

WOMAN JURY.

Laramie was the first place in America, or in the world even, where a female jury was empaneled. Their first case was that of a Western desperado, and there was no flinching from duty on the part of the "weaker sex." Before bringing in their verdict they invoked the divine guidance—while their nurses calmed the rising generation by singing,

"Nice little baby, don't get in a fury,
'Cause mamma's gone to sit on the jury."

STOCK RAISING

is now almost the only industry on these broad plains, and a great many thousand head of cattle, sheep, and horses can be seen in almost any direction. It is computed that there are at this time over 50,000 head of domestic animals on these plains, and increasing very rapidly.

"TRICKS THAT ARE VAIN."

Curious passengers will note from this city west the railroad laborers—section hands—are all CHINAMEN they are said to be very reliable, and as they don't drink whiskey the saloons along the line are getting almost as scarce as the grasshoppers and mice. The saloon men are all "anti-Chinese."

LARAMIE PLAINS.

This belt of fine grazing land is about 20 miles wide by 60 miles long, and is considered one of the best stock sections

in the Territory. The remarks about the grazing lands made elsewhere will well apply to this section. Beef can be raised and fattened on these plains at an expense not exceeding the cost of such cattle in Texas, where, as every one knows, they raise themselves and form the largest half of the population. The peculiar features of these grasses are similar to those already described. The plains are higher, and frost makes its appearance earlier in the fall, but the grass is cured before its arrival by the summer sun, so that the cold weather does not injure it. We need only to mention the well known fact that, before the white man drove them away, thousands of buffalo roamed over these plains—furnishing the Indians with unlimited quantities of beef—to convince any one that the laudations of this as a grazing country are not exaggerated or wild ideas of enthusiasts, but simple facts, substantiated by past and present experience. Agriculture is at present confined to experiments, yet they have demonstrated that the hardy vegetables can be cultivated with success on the bottom-lands *without irrigation*. It is generally conceded that wheat and barley can be raised with profit to the producer here. We should consider the Laramie Plains to be unsafe for those crops, their altitude rendering them subject to severe late spring and early fall frosts.

POINTS OF INTEREST ABOUT LARAMIE.

Crystal Lake is about 40 miles to the westward of Laramie. Sheep Mountain—one of the peaks in the Rocky Mountain range—rears its head for 12,000 feet above the sea. Should the tourist desire to visit the place, he will find the road rough and the ascent toilsome, owing to the steepness of the road and rough country to be traversed. But the view, when once on the summit, will well repay for the trouble. Near this mountain the head-waters of the Laramie River have their sources in innumerable springs among the gloomy canyons and

gorges. Before we begin the ascent of the mountain we enter one of the grandest forests in the country. For ten miles we toil on through the forest, which is so dense that the sunlight lingers and grows pale as it lightens the upturned faces of the mountain flowers with its cheering beams. Bear, mountain lions, and the mountain sheep range here; their haunts, until lately, never having been invaded by the pale face. The silence is unbroken and almost oppressive, save when the breaking of a dry twig under our foot gives us a momentary relief, or the soughing of the winds among the tree-tops breaks the awful stillness, which seems to repel our further advance, as with some fearful presentiment. Emerging from this gloom into the fair sunlight, we find ourselves on the highest point of the mountain, from which we can look over piles of fleecy clouds floating below us to other ranges far beyond. Peak on peak, ridge on ridge, they ascend, until their snow-clad heights are lost in the distance, or in the vast blue dome above. Looking down, we behold a vast succession of dark ridges and gray peaks through the rifts in the fog-like vapor floating above them. These dark ridges derive their somber hue from the forests of pine which extend, for miles and miles, in all directions. To the east we see a deep indentation in the mountains, which is Laramie Plains. Across this apparently narrow line the rugged masses of the Black Hills rise in their grandeur, their black crests closing the westward scene.

Turn now to the immediate landscape. Here is a green, grassy lawn, dotted with tiny flowers, of varieties such as we never before beheld, or ever read of, and right before us, in the centre of this lawn, lies a circular lake nearly a mile wide, its clear, soft, cold water glistening in the rays of the sun, and reflecting, as in a mirror, every object on its banks, transforming them into many fantastic shapes, as the breeze lovingly kisses the silver surface, lifting it into little rip-

ples, which speed away like some coy maiden who flees from the embrace which she has provoked from her ardent swain. The scene is one of unsurpassing loveliness immediately around you; while the view in the distance is grand, aye, sublime—beyond the power of words to depict. Whoever visits this place cannot fail of being impressed with its wondrous beauty, and his mind will take newer and clearer impressions of the power of "Him who hath created all things."

During the building of the road, thousands of ties were floated down to Laramie, and thence hauled along the line. The supply of lumber in this region is as near inexhaustible as can well be imagined, where forests do not recover from the cutting. There will be no second growth of the timber here; when once cut off, it is gone for ever. Saw-mills will find employment for many generations, though, ere they can lay bare these mountains.

MINES.

The mining prospects of Laramie are excellent in many respects. From 40 to 50 miles of mining range is claimed along the base of the mountains, in and around the head-waters of the Laramie, which it is said will pay well. The mines are mostly "placer." The gold is of the coarse order, of good quality and easily obtained, as the "diggings" are what is termed in California "shallow" or "surface diggings."

THE SNOWY RANGE.

The highest ridge of this range, the great backbone of the continent, is covered with snow for a great part of the season; the highest peaks ever wearing their white robes, even when the passes are covered with flowers. This renders them very conspicuous and easily discerned at a great distance. Hence the term "Snow Range." The Black Hills are part and parcel of the chain, though acting as advance guard, and being less in elevation, although the pass over these hills is higher than the pass over the

main chain, or Snowy Range. The Medicine Bow, and other ranges of which we shall speak, are all parts of the great chain, sectionalized by natural divisions or valleys, or water-courses, or perhaps by nothing but a local name.

GENERAL CHARACTERISTICS OF THE COUNTRY:

We will now consider the general features of the country around the city, that the traveler may judge for himself of the capacities of this part of Wyoming for grazing, lumbering, mining, and other sources of wealth and prosperity. In general descriptions, the tourist or traveler speaks of the Laramie Plains as being or including all the country lying between the western base of the Black Hills and the eastern base of the Snowy Range or Rocky Mountains. This country is really a grand park, similar in formation to the great parks of Colorado, though of much less altitude. These "parks" are immense bodies of table-lands, enclosed by the peaks and ridges of the surrounding mountains, sheltered by them from the cold winds, watered by them from the never-failing streams which flow from gorges and canyons among these peaks, from which the snow is never absent. The average elevation of the Laramie Plains or park is about 6,500 feet, though where the city stands it is more. The Black Hill ranges of the Rocky Mountains form the eastern and northern boundary of the "Plains." This range extends nearly due north to Laramie Peak, about 150 miles, thence west, terminating in the Seminole Mountains. Here a prominent peak rises at the mouth of the Sweetwater river, which enters the North Platte from the west, and is really the west fork of the Platte. On the south the park or plain is bordered by the main range of the Rocky Mountains, which here reach an elevation of from 10,000 to 17,000 feet above the sea, snow-capped always. For a distance of 8,000 or 9,000 feet these

slopes are covered with dense pine forests: Here is the timber to feed and the water-power to run any number of saw-mills for years to come. And the constantly increasing demand for this article will insure a permanent and lucrative trade. Here is one great source of wealth; one branch of industry, which will furnish employment to many.

The prominent "peaks" of this section are "Sheep's Head," "Elk Mountain," and "Medicine Bow" Mountains, near the head-waters of the Laramie and North Platte rivers, and the "peaks" south of North Platte crossing. These points stand like guarding sentinels, at intervals along the crest of the mountain ranges which inclose the Laramie park.

In these mountain ranges, mines of gold, silver, copper, iron, and coal have been discovered, and, in several cases, worked to advantage, while a vast region, doubtless equally well stored with mineral deposits, has never been prospected or exploited. This field will eventually prove another source of wealth and prosperity to Laramie and those places near the diverging points for the various mining localities. These general observations might apply in a great measure to Cheyenne, for the mountains surrounding those plains are supposed to be rich in various kinds of mineral deposits.

On the west, from out the Elk Mountains, juts the Rattlesnake range, extending north to the North Platte, carrying an elevation of nearly 8,000 feet.

Through the western range the North Platte canyons, and, on the east, the Medicine Bow river cuts through the eastern range, separating it from the foot hills of the northerly range of the Black Hills. Through the plains run the Big and Little Laramie rivers, which, as we before stated, rise in the mountains which border the western rim of the plains. These streams canyon through the Black Hills north of Laramie Peak, and enter the North Platte near Fort Laramie.

Rock creek rises east of Medicine

Bow, and after flowing north to about latitude 42 deg., flows west and empties into Medicine Bow. This river rises in Medicine Bow Mountains, and flows north to about the same latitude as Rock creek, thence west; and canyons through Rattlesnake range of hills; entering the North Platte about 150 miles northwest of Fort Saunders; in latitude 42 deg. 3 min.

By this showing, it will be observed that the immense park, or Laramie plains, is well watered—sufficiently for grazing and irrigation. We have been more explicit, have dwelt longer on these points, than we should have done, did we not feel a desire to show to the emigrant, or to those who are seeking good locations for grazing lands, that the Laramie plains possess these advantages in an eminent degree. We have wandered far away from the plains in our descriptions, but the grazing lands end not with the plains. The mountain sides, until the timber belt is reached, the valleys, bluffs, and foot-hills, all present the same feature in point of luxuriant crops of grass. The valleys of the streams mentioned also contain thousands of acres of meadow land, where hay can be cut in abundance, and, if the season will permit, wheat, barley, and rye might be grown to advantage, the soil being a black loam, and sufficiently moist to insure good crops without irrigation.

With these general remarks, we will return to Laramie, and proceed on our journey. Soon after leaving the city we cross the Laramie river, and proceed eight miles to

HOWELL'S.

an unimportant station. Six miles from

WYOMING STATION

On the Little Laramie river. Elevation, 7,068 feet. During the building of the road large quantities of ties were received at this point, which were cut at the head of the river and floated down the stream in high water. The country is a broad prairie. We crossed Little Laramie, which rises in the mountains in the west, and empties into Laramie

river. The same description will apply to Whiskey creek, a small stream which we cross next, and soon we reach fifteen miles to

COOPER'S LAKE STATION

Elevation, 7,044 feet. Near the station, to the westward, lies a beautiful sheet of water, about three miles long by half a mile wide, called Cooper's Lake. At this point, during the construction of the road, an immense number of ties were delivered, which were obtained along the base of the mountains, about 18 miles to the westward; where abundance of timber is found. Several sawmills have been erected among those hills, and the lumber trade is now assuming an important position. Four miles west of Cooper's Lake is

LOOKOUT.

Elevation, 7,169. We are now entering the rolling prairie country, where, for 25 miles either way along the road, vast herds of elk, deer, and antelope are found at different seasons of the year, the elk being mostly found in the winter, when the snow drives them from the mountains. We also begin to find occasional bunches of sage-brush, which tell us that we have entered the country where this more useful than ornamental shrub abounds. Occasionally we pass through cuts and over low fills, by snow fences, and through snow sheds, the country growing rougher as we pass along eight miles to

MISER STATION.

Elevation, 6,810 feet. Sage-brush is the rule. Just before entering the station, we pass through a very deep cut—one of the deepest on the road—where a little spur of the bluffs rises abruptly from the plains, right in the way of the road. Just before reaching the next station, we cross Rock creek, famous for its trout fishing. It rises in the mountains to the west, and empties its waters into the Laramie river. Nine miles to

ROCK CREEK STATION.

Coal and water station. Elevation, 6,690 feet. Through various cuts and over fills, through a rough, rolling coun-

try, winding around the spurs of the hills which interlock with each other. Seven miles brings us to

WILCOX,

an unimportant station. Again after passing over creeks and across ravines, for 8 miles more of difficult engineering and middling heavy work, we arrive at

COMO,

with an elevation of 6,680 feet. Soon after passing the station we come to Como Lake, a beautiful little sheet of water, lying to the right of the road. It is about two miles long by one mile wide, and contains plenty of fish. Ducks abound here in great numbers. Passing on, we cross

MEDICINE BOW RIVER,

which rises to the west, in the Medicine Bow Mountains, emptying its waters into the North Platte river.

This river was long a noted resort for Indians, and several treaties have been made on its banks between the "noble red men" and their pale-faced "brothers." The valley of the river, above the station, for twenty miles or more, is broad, fine bottom-land until it reaches the base of the mountain. From thence to its source the course of the river is through im-

COLORADO was first visited by white men—Spaniards—in 1540. Explored by Z. M. Pike, who gave his name to Pike's Peak, in 1806; by Col. S. H. Long, in 1820, who named Long's Peak; by Gen. Fremont in 1843; by Gov. William in 1840, who has traversed the country more or less until the present time.

PAT, it was me that was weighed the other day. Well, what did you weigh? I most forgot now, it was either five feet tin, or tin feet five, and for the life of me I can hardly tell which.

TERMS HEARD ON THE PLAINS.—"Lariat" is the Spanish name for rope. "Bronco," California Spanish pony. "Bueano" ("wa-no"), good; "Esta bueano" (star wa-no), very good, no better; "no sabe," (survey), don't understand; "Quién Sebe?" (kin survey), who knows, or do you understand?

THE "good old-fashioned way" of imparting knowledge to dull pupils. By rule, paddling it in through the pores of the skin.

mense forests of pine, which present unrivaled facilities for lumbering. Fish are found in great quantities in the stream, and the various kinds of game which abound in this country are found in the mountains where the river has its source. Soon after crossing the river we arrive at

MEDICINE BOW STATION,

With a round house of five stalls, seven miles west of Como. Elevation, 6,550 feet. Leaving this station we pass over a smooth, level plain for about five miles, when we enter a rougher country and find evidences of heavier work. We wind around a point, passing through deep cuts and over fills, until we arrive at

CARBON STATION,

Eleven miles west of the last station. Here was discovered the first coal on the Union Pacific R. R. Two banks or coal veins have been opened, the veins averaging about nine feet. The working capacity of the veins is 200 tons per day. The coal is shipped eastward, much of it finding its way to Omaha, besides supplying the towns along the road. About 300 men are employed in the mines. The coal is raised from the mine and dumped into the flats while standing on the track, the shaft of the mine being between the main and side track. A stationary engine furnishes the hoisting power. Carbon is distant from Omaha 656 miles. Elevation, 6,750 feet.

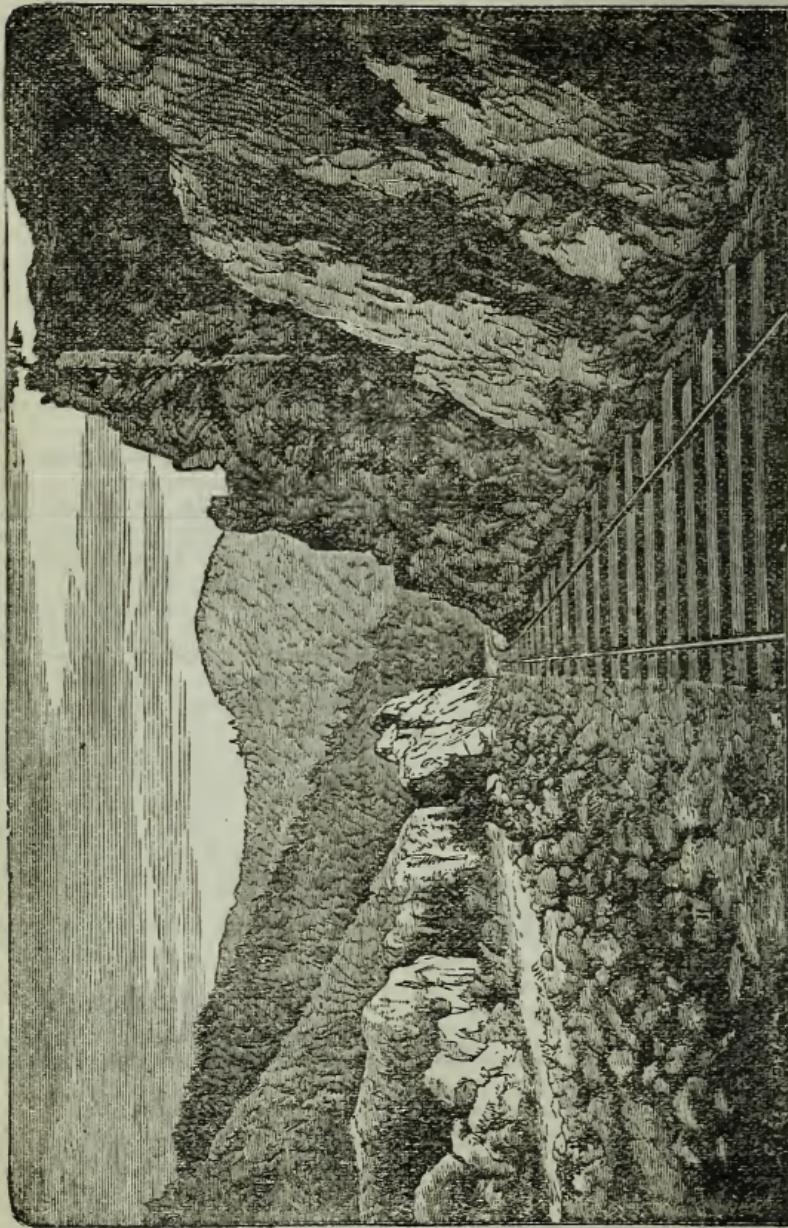
Through a succession of cuts, some quite heavy, for six miles, and we arrive at

SIMPSON,

Unimportant and uninviting. Elevation, 6,898 feet. Seven miles west we arrive at

PERCY

Station, at an elevation of 6,950 feet, and 1,107 miles from Sacramento. It was named for Colonel Percy, who was killed by the Indians, when the survey of the road was being made. He was surprised by a party of war-



29-*Brades*, C. P. & G. See page 140.

riors and retreated to a cabin, where for three days he withstood their attacks, killing several of his assailants. At the end of that time they managed to fire the cabin, and when the roof fell in the Colonel rushed out and was immediately dispatched by the Mr. "Lo's."

During the construction of the road, this was an important station. Ties, telegraph poles, wood and bridge timber were landed at this point, in immense quantities. They were obtained at Elk Mountain, seven miles to the south. The old stage road winds around the base of the mountain, between that and the railroad. At the foot of the mountain was once an important stage station, now deserted. Near this was old Fort Halleck, now abandoned. The last remnant of those days, '66, is now found in the person of Mr. Foot, sutler of the old fort, who still resides there, and at his ranch offers a pleasant resting place to the tourist. To those who visit this locality we would say, find his ranch, and from thence, with Mr. Foot as your guide, you can safely explore the grand scences around and among these mountains.

Elk Mountain is a noted landmark, and quite a curiosty in its way. It rises to a great height, its top being covered with snow a great portion of the year, and at any time snow can be found in places on the summit. It has the appearance of being an isolated peak, though, really, it is the extreme northern spur of the Medicine Bow Mountains. It is, however, surrounded by rolling prairie land, and seems to rise boldly from it, rough, rugged and alone. On the west side, the summit is easily reached by a good road, made by the lumbermen. The mountain is nearly round, about six miles in diameter at its base. Its sides are covered with dense forests of pine, aspen and hemlock. It is worthy of note, that this is the only point where the latter species of timber is found along the line of the road. It grows in profusion with the spruce in the gorges, near the summit.

To the south, is a fine valley, about 15

miles wide by 20 miles long. Pass creek, which rises in the Medicine Bow Mountains, runs through this valley on its way to the North Platte river. Large quantities of hay are cut in the bottom lands along the creek. This stream, like all others which rise in this range, is full of fine trout and other fish. Antelopes abound on the plain, while elk, deer, bear, mountain sheep and mountain lions find their homes in the dark ravines and gloomy gorges of the mountain.

DANA.

Six miles west of Percy. From this point, and we might say, from Percy station to the Platte river, we pass down the valley of an alkali ravine. Sagebrush and stagnant pools of alkali water are the only objects that greet the eye—an unpleasant greeting, it must be confessed.

ST. MARY'S.

Five miles west, we arrive at St. Mary's. Soon after leaving St. Mary's, we enter the ravine, where the bluffs assume more formidable features. The ravine becomes a gorge, and the rugged spurs shoot out as though they would reach the opposite wall, and bar out farther progress. The first one of these spurs does indeed bar our way, or did until the tunnel we are entering was completed. Before this tunnel was finished, the company laid the road around the point of the spur on a temporary track. Emerging from the tunnel, we rush down the gorge, the wall now rising close, abrupt, and high, on either hand, we arrive at

WALCOTTS.

An unimportant station, eight miles west of St. Mary's—down—down we go the rough spurs point out from either wall of the canyon, an indenture in one bank marking a projection on the other. While looking on this scene, one cannot help fancying that at one time this chasm was not; that some fearful convulsion of nature rent these mighty rocks in twain, leaving these rugged

walls and fetid pools to attest the fact. Suddenly we whirl out of the mouth of this chasm—out onto the level lands of the North Platte river—cross a substantial wooden bridge, and stop at

FORT FRED. STEELE,

A fort and regular passenger station, 8 miles west of Walcotts—elevation, 6,840.

This fort was established June 30th, 1868, by four companies of the 30th Infantry, under command of Brevet Col. R. I. Dodge, Major 30th Infantry. Captain C. C. Rawn, present post commander. The garrison consists of companies B, D, F and I of the seventh Infantry. J. K. Carson, U. S. A., post surgeon. About two miles west of Fort Steele formerly stood

BENTON CITY,

Now entirely abandoned. The road was completed to this point the last of July, 1868. At that time a large amount of freight for Fort Fred Steele, Montana, Idaho, Utah, and the western country was reshipped in wagons at this point, and during August and September the place presented a lively aspect, which continued until the road was finished to Bryan, about the first of October. The town at that time was composed of canvas tents. About 3,000 people of all kinds made the population; a harder set it would be impossible to find. Roughs, thieves, petty gamblers (the same thing), fast women, and the usual accompaniments of the railroad towns flourished here in profusion. There were high old times in Benton then, but long before the road reached Bryan, the people "packed up their tents and stole noiselessly away," leaving only a few old chimneys and post-holes to mark the spot of the once flourishing town. All the water used by this people was hauled two miles from the Platte river at an expense of one dollar per barrel, or ten, cents per bucket-full.

At Benton, the bluffs which mark the entrance to the canyon of the Platte near Fort Steele, are plainly visible and will continue in sight until we near

Rawlings Station. They are of gray sandstone, worn, marked by the waters or by the elements, far up their perpendicular sides. They are on the opposite side of the river, the banks on the west side being comparatively low.

At this point, the river makes a bend, and for several miles we seem to be running down the river, parallel with it, though really drawing away from the stream.

To the south, is a long, high ridge of gray granite, called the "Hog's Back." It is about four miles away from the road, and runs parallel with it for about 15 miles, terminating in the highlands of Rawlings Springs. It is very narrow at the base, not exceeding half a mile in width, yet it rises from 500 to 2,000 feet high. The ridge is so sharp that cattle cannot be driven across it, and in many places it is all but impracticable for a man to attempt to walk along its summit. Where this ridge reaches the river bank, about two and a half miles above the bridge, the walls are perpendicular, and very high, from 1,500 to 2,000 feet. A corresponding bluff on the opposite side shows that the river has cut a channel through this ridge, which at one time barred the progress of the waters.

On the south side of the ridge is a very pretty little valley, through which flows a small creek into the Platte. It furnishes fine grazing, and is in marked contrast to the surrounding country.

Many years ago this green and peaceful looking vale was the scene of a fearful battle between the Sioux and their inveterate enemies, the Utes. The Sioux were encamped in the valley, and were surprised by the Utes, who stole on them in the gray light of the morning, and attacked them furiously. Though taken by surprise, the Sioux fought bravely, but were surrounded and overpowered. When trying to escape, they essayed to cross the Hog's Back, but every one who raised his head above the crest was picked off instantly. A portion of the band escaped in another direction, leaving their dead comrades on the field. The Sioux were so badly whipped, that

from that time forward they called the Utes "Bad Medicine."

PLATTE RIVER ABOVE THE FORT.

We will make a brief paragraph regarding the Platte above the fort, although we have spoken of the river before. From Fort Steele to the head waters of the Platte is about 150 to 200 miles. It rises in the mountains of the North Park, its waters being supplied by many tributaries, which, at present, are mostly nameless. The course of the river, from its source to this point, is nearly due north. The stream and its tributaries abound in fish; the surrounding country in game.

About twenty-five miles above the fort, is the Platte ferry, on the old overland stage road.

Good bottom lands are found along the stream at intervals. About 100 miles further up, the tributaries of the river begin to empty their waters into the main stream. Here the timber land commences, where was cut great numbers of ties, which were floated down the river to the road.

Douglass creek and French creek run through heavy timbered valleys, and here the work of cutting ties commenced.

These streams are icy cold and abound in trout. Gold mines and gulch diggings were discovered here, but not prospected to any great extent. On the west side of the river Monument and Big creeks empty their waters nearly opposite the creeks first named.

Big creek rises in a beautiful lake, about three miles long by half a mile wide. A half mile above this lies another lake, but little smaller. "Float mineral"—galena—was found here, but no prospecting attempted. The ground is disputed territory between the Sioux and Utes, rendering it very unsafe for small parties.

Eight miles from Douglass creek coal is found in abundance, and farther on, fine-looking quartz veins crop out on the hill side; but what they contain is unknown, as they have never been pros-

pected. Near here are sulphur springs, seven in number, and very hot; while, along side of them rises a clear, sparkling spring of ice cold water, and we opine that the time is not far distant when these springs will be taken up and improvements made, and one of the finest "watering places" in the world will be opened to the public—we will see.

Fish of many kinds, and beavers, are abundant in the streams; the beavers erecting dams often six feet high. The mountains and forests are full of game, and in them and the open valleys can be found elk, deer, antelope, bear, mountain sheep and lion, and, occasionally, the bison or mountain buffalo.

The forests are dense and large in extent; the valleys fertile and of good size. All in all, it is a grand, wild country, where the tourist would enjoy himself, to his heart's content, in hunting, fishing and fighting the Indians.

GRENVILLE.

Eight miles west of Fort Steele we pass this station, making but a short stop. Five miles further, we arrive at

RAWLINS SPRINGS.

This place is one of the regular eating stations, the company having put up a fine hotel here for the accommodation of the travel on the road. Elevation, 6,732 feet. Distance from Omaha, 709 miles. The town contains about 400 inhabitants. The company have a round house, of ten stalls, built of stone, also a machine shop, built of the same material.

The surrounding country is rough and broken, covered with sage-brush and flecked with alkali. Near and above the town are the springs which give their name to the place. They consist of the seepage of a narrow, wet ravine, which extends about a mile above the town. The bed of the ravine as far as the water extends, is white with alkali, where the pools of stagnant water do not cover it. At the foot of this wet strip of land a trench has been cut, from

which flows a stream of water, better to the taste than that found in the "springs."

Leaving Rawlins, we follow the wet ravine, through a natural pass about 300 feet wide, which leads between two high bluffs, at the head of the wet ground alluded to. It appears that at this point the hills crossed the ravine, which has since cut its way through them. Perhaps a large lake was imprisoned above, which burst these walls and left a natural route for the railroad. The bluffs are about 100 feet high on each side of the road, almost perpendicular, of hard, gray granite, and from this place was taken the stone used in constructing the round house and machine shop at the springs. Beyond the pass we follow up this dry channel through a sage-brush and alkali country to

SEPARATION STATION,

An unimportant place, 14 miles west of Rawlins; elevation, 6,900 feet. We are rapidly-rising and in a few miles further ride we shall be on the summit of the Rocky Mountains.

CRESTON.

Through sage-brush and alkali beds for 14 miles before we arrive at this station. We are now near the summit of the great "backbone" of the continent, the Rocky Mountains. According to General Dodge, we are now just 7,030 feet above the level of the sea.

Two and a half miles west of this point, a flag, planted by the wife of Captain Clayton, near the track, marks the summit 7,100 feet above the level of the sea. This point is about 185 miles from Sherman, 737 from Omaha, and from San Francisco, 1,177.

On this wild spot, surrounded by few evidences of vegetation, and those of the most primitive form, this little flag-staff marks the center of the grandest range of mountains on the continent. Amid what seems to have been the wreck of mountains, we stand and gaze away in the vast distance, at the receding lines of hill, valley and mountain peaks, which we have passed in our journey'

We feel the cool mountain breeze on our cheeks, but it brings no aroma of life and vegetation with its cooling current. We feel and know that the same sky which hangs so warm and blue over the smiling valleys, looks down upon us now; but how changed the aspect; thin, gray and cold it appears, and so clear that we almost expect to see the stars looking down through the glistening sunbeams. We do not seem to be on the mountain height, for the expanse seems but a once level plain, now arched and broken into ugly, repulsive hollows and desolate knobs.

Here, if a spring should arise from this sage-brush knoll, its waters would divide, and the different portions eventually mingle with the two oceans which wash the opposite sides of the continent. We enter the cars and pass on, the track seeming to be lost but a short distance in our front. The view from the rear of the car is the same. The track seems to be warped up and doubled out of sight. The curvature of this back-bone gives the track a similar appearance to that witnessed at Sherman. Although much higher at Sherman, still this is the continental divide, but the low, broad pass brings us 1,212 feet below that place. To the north, the Seminole Mountains rear their rugged heights, and farther on, and more to the westward, can be seen the long lines and gray peaks of the Sweetwater range. Still farther to the west and north, the Wind River Mountains close the scene in the dim distance, their summits robed in snow. Away to the south can be seen the hills which form the southern boundary of the pass, near by where the Bridger Pass station is situated on the old overland stage road. Between these mountain crests, about 150 miles apart, the pass extends—an undulating, broken, bent, and double plain, if such a thing can be supposed to have been created.

With a last look at this rugged, barren, desolate region, we speed away over the crest, and down the grade to

WASH-A-KIE STATION,

A station 15 miles to the westward.
Elevation, 6,697 feet.

RED DESERT,

Nine miles from Wash-a-Kie. Elevation, 6,710 feet. The country around here is called the red desert from the color of the barren soil. It is a huge basin, its waters having no outlet. Several alkali lakes are found in it, but nothing lives on its surface. It is said that a jack rabbit once tried to cross it, but died of starvation and thirst before he accomplished his journey. The soil is bad between Table Rock and Creston, the extreme points of the desert, 38 miles apart. It is composed of the decomposition of shale and calcareous clays, and is deep red, showing the presence of an hydrous sesquioxide of iron. The southern margin of the basin is mainly sand, which is lifted up by every passing breeze, to fall in drifts and shifting mounds.

TABLE ROCK.

Fourteen miles westward, we reach this station, on the outer edge of the desert, which has an elevation of 6,890 feet. Off to the left can be seen a long line of bluffs, rising from 50 to 500 feet above the surrounding country. They are of red sandstone, worn, cut and fluted by the action of the elements. One of these bluffs, which gives its name to the station, is level on the top, which rises about 500 feet above the road, and extends for several miles. Heavy cuts and fills are found here, showing that the road is passing through the rim of the desert. After passing through this rim, we go on, through a rough and broken country for ten miles, when we arrive at

BITTER CREEK STATION.

At this place the company have a ten-stall round-house, and a machine shop. Elevation, 6,685 feet.

As we leave this station, we begin the descent of the celebrated Bitter creek, the valley of which we shall follow to Green river, about 60 miles away. The

valley is narrow, the bluffs coming near the stream on either side. The stream is small and so strongly impregnated with alkali as to be almost useless for man or beast. The banks and bottoms are very treacherous in places, miring any cattle which attempt to reach its fetid waters. This section was always a terror to travelers, emigrants and freighters for nothing in the line of vegetation grows theron excepting grease wood and sage-brush. The freighter, especially, who had safely navigated this section, would "ring his popper" and swear that he was a "tough cuss on wheels, from Bitter creek."

From the source to the mouth of this stream, every indication points to the fact that deposits of oil underlie the surface. Coal veins, valuable ones, have been found, and an oil bearing shale underlies a large portion of the valley. The old overland stage and emigrant road follows this valley from its source to Green river. From the bluffs, spurs reach out as though they would like to meet their jagged friends on the opposite bluffs, and around the rough points the cars roll merrily on until we arrive at

BLACK BUTTES,

Nine miles west of Bitter creek station. Elevation, 6,600 feet. Near this station is a coal mine, or vein, about four feet thick, which produces an excellent quality of coal. The mine has a working capacity of 100 tons per day. Four miles west we arrive at

HALLVILLE,

Where exists coal in great abundance, of very superior burning quality, free of sulphur and smoke. There are several veins in the vicinity, from seven to ten feet thick. This coal is highly spoken of, and the mine can produce 300 tons per day when necessary. The mine is very easily worked, and has an excellent roof. Seven miles to the west, after passing through the same desolate region, we arrive at

POINT OF ROCKS.

Eight hundred and five miles west

from Omaha. Elevation, 6,490 feet. The Junction House is the principal hotel. Coal mines are found near the place. One has been opened, which is five feet thick, by the Wyoming Coal Company. It has a working capacity of 100 tons per day. The coal is said to be of very ordinary quality.

Stages leave this point daily in summer for Sweetwater Mines, on arrival of the cars. The distance to the mines, by this route is from 70 to 80 miles.

SWEETWATER MINES.

These mines are attracting considerable attention just now, therefore, a short description of them may not be uninteresting to our readers. The mines, or rather Sweetwater district, lies on the Sweetwater river, a tributary of the Wind river, which passes through a very fine mineral and agricultural country. The Sioux and Cheyennes have long held possession of this section, guarding it from the intrusive white man and occasionally fighting among themselves for possession. The great trouble now is to keep up a mining settlement against their aggressions, and to protect the miners and settlers from their onslaughts. The Government has stationed detachments of soldiers in various parts of the district. With these precautions, there is a tolerable degree of safety for the adventurer and miner. The Indians—"friendlies"—have made several raids of late on the settlers, and have killed a number of miners and ranch men, but were finally driven off by the miners, who made a few "friendly."

THE MINES.

The mines are "real," the ledges large and showing plenty of gold. The principal lodes are "Miner's Delight," "Buckeye," "Cariboo," "Mammoth Lode," "Gold Hunter," "Mary Ellen," and "Atlantic." These lodes are said to be very rich. We examined some rock from the various mines, which showed plenty of gold and was really very rich for surface rock. But their

permanent value remains to be tested by deep shafts which shall expose the lodes below the water line.

Placer gold in paying quantities has been found, and several claims are being worked to great advantage to their owners. The Indians used to bring very fine specimens of coarse gold from this section, long before the white man found his way to it. About 2,000 miners are now at work in the district.

SOUTH PASS CITY.

The principal place in the district is South Pass City. Population, 1,500. Principal hotel, the Irvin House.

About 55 miles from South Pass, on Wind River, is Buffalo Bull Lake. It is said that no boat as yet has ever floated on its surface, the Indians being very superstitious about a famous old bull, who, after all his herd had been killed, plunged into this lake, where he has often been seen and frequently been heard to roar. The Indians have a mortal fear of the lake and its strange inhabitant, and few can be induced to venture into its waters. A few winters since some Indians went out on the ice to cut a fish-hole, and had just completed their work when they heard the bull directly beneath them, and dropping fishing-tackle, knives and blankets, they fled for their lives, and could never be prevailed upon to go back—strange lake that—good joke on the "friendly."

ATLANTIC CITY.

This town is situated about four miles from South Pass City, north of east. Population, about 300.

HAMILTON CITY

Is about four miles from Atlantic City, and contains about 150 inhabitants. All of these towns are mining camps, not of any real permanency yet, nor will they be until the stability of the mines is established. Silver, as well as gold and placer mines, have been found, and report says the lodes are very rich, and—

like some of the gold bearing ores—rather refractory in working.

The valley of which we made mention, and those which lie along the tributaries of Wind river, are very fertile, but heretofore the Indians would allow no whites there; therefore, agriculture is in the back ground at present. The country to the east is said to be rich in gold. Where the settlers have been permitted to till the ground, currants, raspberries, gooseberries, blackberries, strawberries, cherries, plums and apples grow in profusion, proving the capabilities of the soil. The country east to the "Big Horn Mountain" is as yet unexplored—it is the objective point of the "Big Horn Expedition," already spoken of.

Wind river is a tributary of the Big Horn river, which empties into the Yellowstone. The streams abound in fish, including trout of excellent flavor. The valleys and mountains furnish game in abundance, including deer, elk, antelope, mountain sheep, buffalo, cinnamon, brown, black and grizzly bears.

With this short sketch of this locality, which is daily growing in importance, we return to our description of the road, merely premising, that while we have been telling you of this country, that the cars have arrived at the next station, Salt Wells, twelve miles to the westward from Point of Rocks.

SALT WELLS STATION,

Side-track and wood station, until coal became abundant. Elevation, 6,360 feet. The country is desolate and covered with grease-wood and sage brush. The water is brackish, and in places very salt. From eight to ten miles south, in the gulches and on the Bitter Creek Range, elk, deer and many varieties of game are found in abundance. Passing on through this uninviting valley, for 11 miles, we arrive at

VAN DYKES,

A small, uninteresting station, except for the coal mines discovered here. Three miles more brings us to

ROCK SPRINGS,

Another unimportant station, but where better water is found than at any other point on the creek, and this is very saline. It boils up out of the bluffs, looking very clear and nice, but it is very deceiving—an uncommon thing in this truthful world. The station is on the line of the 109th degree of longitude. Elevation 6,280 feet. A vein of coal, of good quality, about four feet in thickness, has been discovered, but at present the owners are not working it.

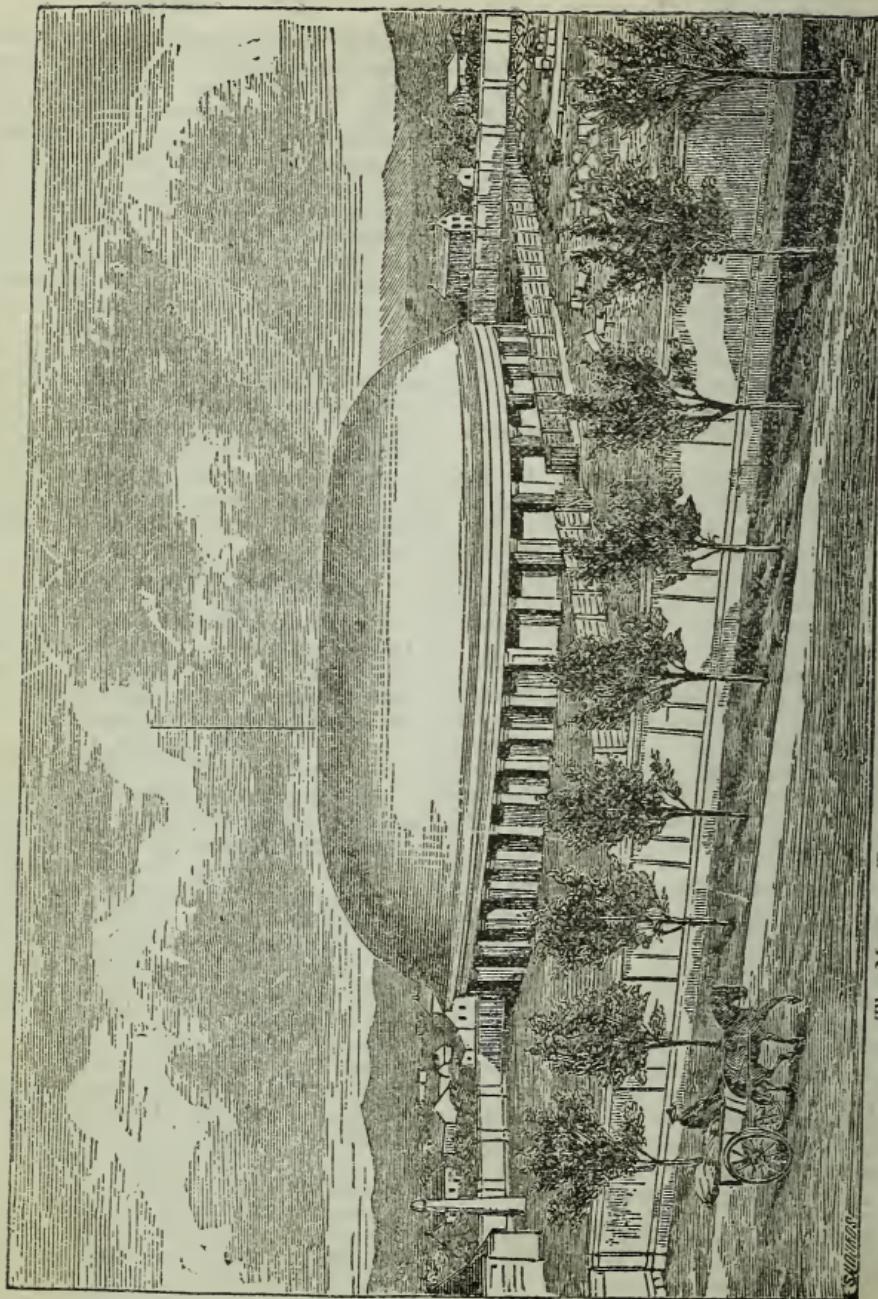
From this point to Green River, the scenery becomes more grand and impressive, the bluffs rising higher and the gorge narrowing, until the hills seem to hang over the narrow valley with their frowning battlements. Through this gorge we rattle on for 14 miles, when we arrive at the site of the deserted city of Green River, close to the station of that name.

GREEN RIVER STATION.

Elevation, 6,140 feet. Distance from Omaha, 845 miles; from Sacramento, 931 miles. This station is on the east side of Green River, and close by the old overland stage company's ford.

GREEN RIVER CITY.

This now deserted city was laid out about the first of July, 1868, by H. M. Hook, first Mayor of Cheyenne City. In this enterprise, James Moore, of Cheyenne, was interested, and these gentlemen suppose that the terminus of the road would be at this point during the winter. In September, 1868, the place had a population of over 2,000, and substantial adobe buildings were erected, and the town presented a permanent appearance. But the river was bridged, and as the road stretched away to the westward, the town declined as rapidly as it arose, the people moving on to Bryan, Bear River, and other points, until there was no one left but those connected with the stations—in the company's employ. The walls of the old buildings are still standing, some with the roofs still covering them,



The Mormon Tabernacle on Temple Block, Salt Lake City, Utah.

though most of them have only the bare walls, the roofs now doing duty at some other point. Geographical indications point to the fact, that this station may become an important one in time, however desolate it may now be.

GREEN RIVER.

This stream rises in the northwest of the Wind River Mountains, at the base of Fremont's Peak. The source of the river is found in innumerable little streams, about 200 mile from the railroad crossing. About 150 miles below the station the river empties into the Colorado river. The name, "Green river," implies the color of the water, but one would hardly expect to behold a large, rapid river, whose waters possess so deep a hue. The river, for some distance up the stream, commencing about fifty miles above the station, runs through a soil composed of decomposed rock, slate, etc., which is very green, and easily washed and worn away, which accounts for the color of the water. At all seasons of the year the water is very good, the best, by far, of any found in this part of the country. The tributaries abound in trout of fine flavor, and the main river is well stocked with the fluny tribe. Game of all kinds abound along the river and in the adjacent mountains.

The lower stream presents a very marked feature, aside from the high bluffs of worn sandstone and sedimentary deposits. These features are strongly marked, above the bridge, for several miles; but of that we will speak more in detail as we ascend the river.

From this station, the celebrated exploring expedition of Major Powell started on the 24th of May, 1869. Major Powell left Chicago, Friday, May 7th, for Green River City, accompanied by about a dozen well armed, intrepid men, mostly Western hunters. They had four well built boats, with which to explore the mysterious and terrible canyons of Green river and the Colorado. These gorges were comparatively unknown, the abrupt mountain walls having turned the travel far from their

sterile shores. Science and commerce demanded a solution of the question "Can the upper Colorado be navigated?" and Major Powell undertook to solve the problem. After he started on his journey, long before any authentic accounts could be had, the community were thrown into a terrible excitement by the report that the expedition was lost—that all were drowned but one. Soon after this, the public were relieved by the published letters of Major Powell, announcing his safety. The party encountered hardships like all exploring expeditions, discovered beautiful scenery, and in their report have thrown some light on the mysteries of this before untraveled country, but as a detailed description has been given the public in the lectures of Major Powell and in many of the journals of the day, we will not wander farther away, but return with the reader to the Railroad.

After crossing Green River on a fine bridge, the cars pass along through heavy cuts, almost over the river in places, affording a fine view of the frowning cliffs on the east side of the river. Twenty miles to the northwest, a large barren butte, pilot knob, stands in isolated loneliness. Soon we leave the river and pass along a dreary barren waste, for 13 miles, we arrive at

BRYAN.

A regular eating station. The country around is barren, composed of red sand, and uninviting in the extreme. We are again increasing our elevation, and will soon be above this cheerless range, into a higher and more hospitable region. Elevation at this station, 6,340 feet. Round-house of 12 stalls, and machine shops. This station, during its early days, was quite lively, and troubled with the usual number of roughs, gamblers and desperadoes. When the Vigilance Committee was in session, they waited on one of the latter class, a noted desperado, and gave him 15 minutes to leave town. He mounted his mule and said: "Gentlemen, if this d—m mule don't buck, I don't want but five." We

commend his judgment, and consider that for once his head was level.

From this point it is 90 miles to South Pass City, Sweetwater mines, to which place a line of four-horse stages is dispatched tri-weekly—fare \$20—carrying the Express and U. S. mails. About 80 miles from Bryan is the Pacific Springs, on the old "California trail."

At this station we approach Black Fork, a tributary of Green river. It rises in the Uintah Mountains, about 100 miles to the southwest, and empties into Green river, below Green River City. The bottom lands of this river, for fifty miles above Bryan, are susceptible of irrigation and the production of small grains. These lands range from a quarter to a mile in width.

The road was completed to Bryan in September, '68, and large amounts of freight were delivered here to be reshipped to the westward. At the present time some freighting business is carried on between this point and the Sweetwater mines. Leaving Bryan, we ascend Black Fork, crossing it twice, and pass MARSTON, a flag station. About 12 miles beyond Bryan, on the right, to the north, the road leading to Sweetwater can be plainly seen, the long line of telegraph poles marking the route up the broad ravine. At the same point, the old Mormon trail from Johnson's Ford, on Green river, 12 miles above Green River Station, comes in from the northeast. About five miles beyond these roads and 18 miles from Bryan we arrive at

GRANGER'S STATION.

Elevation 6,270 feet. General C. Augur has selected this place as being the best shipping point for the Government stores and soldiers destined for the Sweetwater mines. It has an advantage in distance of about 10 miles, and it is said that the road, by this route, is preferable to any other. Government trains afford protection to emigrants, miners, etc., who travel this road to and from the mines. The station is named for an old settler, Mr. Granger, who keeps a ranch near by. Near

Granger we cross Ham's Fork, on a good wooden bridge, just at its junction with Black's Fork.

HAM'S FORK.

This stream rises about forty miles to the northwest, in Hodge's Pass. The bottom lands of this stream are very productive of grass; the upper portion of the valleys, near the mountains, produce excellent hay crops. It is supposed that the small grains would flourish here under irrigation, but the experiment has not yet been tried on a large scale, though the whole valley can be irrigated with but little labor.

In 1867 the U. P. R. R. Co. surveyed a route from this point—Ham's Fork—via Salmon Falls, Old's Ferry on the Snake river, Umatilla to Portland, Oregon. The route, as surveyed, is 460 miles by railroad, 315 by steamboat.

Leaving Granger, we find that we are leaving Black's Fork to the left, as also the old stage road, which follows up that stream to Fort Bridger. Now we bear away to the right and follow up the bank of the BIG MUDDY, which we cross and recross several times before we reach Piedmont—where we shall leave it—some 50 miles ahead. The valley of the stream is narrow, producing sage-brush and greasewood in luxuriance, and would produce good crops, with irrigation. Above Carter's Station, the bluffs come nearer together, forming a rather rugged route for the road. The bluffs at this point are rough and broken, and in the gorges a great amount of scrub-cedar wood is obtained. Soon we arrive at the noted Moss Agate station,

CHURCH BUTTES.

This station is 11 miles from Granger, 887 miles from Omaha, and 889 miles from Sacramento. Elevation, 6,317 feet. Freight and passenger trains stop here, and passengers can find accommodations if they wish to explore the country for moss agates or scenery.

These beautiful stones are found along the line of the road from Green River to Piedmont, but in greater profusion here than at any other point near

the road. They are found on top of the bluffs, where the wind has blown the dirt and sand away, leaving them exposed on the surface.

We have a few words to say to the tourist who may stop here to look for these gems. When you go out to hunt for them, don't be in a hurry—take your time and keep cool. Take a hammer along also. Crack the rocks and ledges; look at the pebbles beneath your feet; and when you find one of the agates, if it looks dull and rusty, don't throw it away in hopes of finding a prettier one, for often the dull-looking stone, when rightly cut and dressed, is very beautiful and valuable.

But one word further regarding the search for moss agates. We will direct you to a far better place. Go to the next station west, Carter's, and from thence go to Fort Bridger, 10 miles distant. When you get there, don't put on any city airs, but keep the man on the outside, and the fop for the city, and act like a reasonable being. Go to our friend Judge Carter's commodious hotel, and then form the acquaintance of some genial fellow, of whom there are plenty to be found at the fort. Then obtain a good horse, or some other mode of conveyance, and with your companion start out in quest of the object of your search. You will go from five to ten miles east on the "old overland stage road," toward Millersville, and there you will find the agate in greater quantity and of better quality than at any other place in the country, as far as heard from. Besides the agates, you will find, near Fort Bridger, the finest fishing and hunting to be found anywhere this side of the Rocky Mountains. We know these things to be so from actual experience.

But to return to Church Buttes station, which derives its name from the peculiar formation of the sandstone bluffs, which extend for many miles on the left hand side of the road, about ten miles distant. At the old Church Buttes station, on the "old overland stage road," about nine miles to the south, they rise

in lofty domes and pinnacles, which, at a distance, resemble the fluted columns of some cathedral of the olden time, standing in the midst of desolation, its lofty, turreted roof and towering spires rising far above the surrounding country; but on nearer approach, the scene changes, and we find a huge mass of sandstone, worn and washed by the elements, until it has assumed the outline of a church, but of the grandest dimensions, it being visible for 14 miles.

We leave the station, the buttes and moss agates, and after a ride of 9 miles, we arrive at

HAMPTON.

This is a mere flag station, situated near the Big Muddy Creek, which we shall follow up for 50 miles.

CARTER'S STATION.

We find this a military, freight, and passenger station. Elevation, 6,550 feet. The station is named for Judge Carter, of Fort Bridger. This gentleman has a large warehouse at this point, where freight is received for Virginia City, Helena, and Bannock City, Montana Territory. This route is said to be 80 miles shorter than any other road leading from the U. P. R. R. to these cities.

FORT BRIDGER.

This post was established in 1858 by General A. S. Johnson, and called after James Bridger, the renowned hunter, trapper, and guide.

The fort is 159 miles from Salt Lake City; 69 miles from Green river, and 130 miles from the Sweetwater gold mines. Latitude 41 dg. 18 min. and 12 sec., longitude 110 dg. 32 min. and 38 sec.

The valley in which the post is situated affords fine grazing, and is nearly all susceptible of irrigation. At Carter's

Station, freight and passengers for the fort are left, thence to the fort by government conveyance, there being no other.

As this post is one of great historic interest, we publish the following

MEMORIES OF BRIDGER,

Which were handed to us by one of our friends, who was with the first party of soldiers who arrived at the place where the fort now stands:

"Early in the winter of 1857, on the 23d of November, the winds were blowing cold and bleak over the snow-covered ridges surrounding Bridger—a town with a significant name, but nothing but a name except an old stone building with the appellation of fort attached to it, built by the Mormons, and surrounded by a small redoubt and *chevaux de frise* pierced for three six-pound mountain howitzers.

"The U. S. forces, comprising the fifth, seventh and tenth infantry, second dragoons and four companies of the fourth artillery, the whole under command of Brigadier-General Albert Sidney Johnson, were on their way to Salt Lake City, the fifth, under Major Ruggles, the seventh, under Colonel Morrison, the second dragoons under Colonel Howe, the fourth artillery, under Major Williams, entered Bridger on the 23d of November, and established a camp, while a part of the supply train accompanying the expedition, numbering at least 160 wagons, was behind, delayed by the heavy snows, entirely separated from the command, and forced to encamp about one mile from each other on the Big and Little Sandy rivers. [NOTE.—These streams are tributaries of Green river on the east, rising near South Pass, about 160 miles north of Bridger.]

"While encamped there, a party of Mormons under the command of Orson Pratt, the generalissimo of the so-called Mormon Legion, assisted by one Fowler Wells, another formidable leader of the Mormon church militant, dashed in and surrounded the trains in the dark hours

of the night, completely surprising the entire party, not one escaping to give the alarm. After taking the arms and equipments from the men, they gave them a very limited amount of provisions to last them through to Leavenworth, allowing them at the rate of five head of cattle for twenty men, and then started them off in the wilderness to reach that place—about 1,000 miles distant, with no weapons other than their pocket knives with which to protect themselves against the Indians or to procure game when their limited supply of provisions should become exhausted. After accomplishing this soldierly, humane and Christian act, the Mormons set fire to the train, burning up everything which they could not carry away, and retreated, driving the stock with them, while those left to starve turned their faces eastward. There were 230 souls in that despoiled party, only eight of whom ever reached the border settlements; the knife of the savage, and starvation, finishing the cruel work begun by the *merciful* Mormons. The survivors reached Leavenworth in June, '58, bringing the sad intelligence of the fate of their comrades.

"The loss of these trains necessarily cut short the supplies in Bridger. The troops were put on short rations, and to add to their horror, the beef cattle accompanying the expedition had nearly all frozen to death, leaving but a few head in camp.

"At Black Fork, the command lost over 300 head in one night; the horses and mules dying in about an equal ratio. Before reaching Bridger, the dragoons were compelled to bury their saddles in the snow, the horses being unable to carry them. The animals were compelled to subsist on sage-brush for two-thirds of the time, and then, to obtain this fibrous shrub, they were compelled to remove snow several feet deep. The men had no other fuel; no water only as they melted snow, for three weeks before reaching Bridger.

"When the news arrived at the camp that the trains were destroyed, the troops

immediately began to forage for anything that was palatable, well knowing that no supplies could reach them before late in the spring. The snow was then, on an average, from six to seven feet deep, and the game had mostly left the hills. The rations were immediately reduced one-half, but even this pittance failed on the 28th day of February, when one-quarter ration per man was issued, being the last of all their stores. Two 100 pounds sacks of flour were secured by Major E. R. S. Canby, who gave for them \$300 in gold. They were placed in his tent, which stood where the old flag staff now stands, and he supposed his treasure secure. But that night a party of men belonging to Company I, 10th Infantry, commanded by Lieutenant Marshall, made a *coup d'état* on the tent, pulling out the pins and throwing the tent over the astonished Major, but securing the flour, with which they escaped in the darkness, and succeeded in hiding it about a mile from camp, in the sage brush. All was confusion. The long roll was beaten, the troops turned out and answered to their names, no one being absent. So the matter ended for the time. The next day, at guard mount, the Major commenced a personal search among the tents for his flour. He found what? In one tent, two men were cooking a piece of mule meat; in another, he found five men cutting up the frozen skin of an ox, preparatory to making soup of it, the only other ingredient to the savory mess being a little flour. Overcome by the sight of so much wretchedness, the Major sat down and cried at his inability to assist them. He asked the men if they could obtain nothing better to eat, and was answered in the negative.

"The severity of the suffering endured by the men nearly demoralized them, still they went out foraging, dragging their wasted forms through the snow with great difficulty. Some would meet with success in their hunts at times; others would not. The mules and horses were either killed and eaten by the men, or died of cold and hunger,

which left them without the means of supplying their camp with wood, only as they hauled it themselves. But the men did not murmur. Twenty or thirty would take a wagon and haul it five or six miles to the timber, and after loading it with wood, haul it to camp. Each regiment hauled its own wood, thus securing a daily supply. Some days a stray creature would be slain by the hunters, and there would be rejoicing in the camp once more.

"Early in the spring of '58 most of the men departed for Salt Lake City, leaving companies B, D and K of the 10th Infantry, and company F, 7th Infantry. Twenty-seven men from each company were detailed to go to the pineries, 25 miles away, to cut timber with which to erect quarters. On arriving in the pinery, they found an old saw mill and race, which had been used by the Mormons, and everything convenient but the necessary machinery. Luckily the quarter master's department had the required machinery, and soon they had a saw mill in good running order. By the 15th of September, 1858, the quarters were up and ready for use. They were large enough for five companies, including a chapel, hospital, sutler's store, guard house, etc. Before these quarters were finished, the quarter master's department and ordnance department, together with the commissary stores, were all stored within the little stone house, there being no other safe shelter.

"The Fourth of July, '58, was duly observed and honored. The flag staff was raised in the center of the parade ground, the flag hoisted by Major Canby and prayers said by Major Gatlin, and to the credit of the soldiers present be it said, that one Fourth of July was celebrated by sober men, not one soldier being intoxicated, though there was liquor in the camp.

"On the 23d of September, 1858, a large train of supplies arrived, causing great joy among the troops. Two days later three long trains of supplies filed

through the place on their way to Salt Lake City. * * * * *

"The fort was named for 'Jim Bridger,' an old hunter, who lived here more than 30 years. He is still alive, living in St. Louis, Missouri. He was at Bridger in May, '69, for a visit, remaining one week. Luther Mann, (citizen,) Indian Agent for the Shoshones and Bannocks, has resided here for three years. The chief of the Shoshones, Washakie, whose picture will be found on another page, is a very kind, honorable Indian, and has been the steadfast friend of the whites for many years.

Black's Fork, which runs through the center of the parade ground, affords excellent water, and with Smith's Fork, a stream five miles southeast, affords as good trout as there is in the country."

With the closing of our correspondent's narrative, we resume our route, taking up the connection at

BRIDGER STATION.

Named after James Bridger, who first came to the country in the employ of the American Fur Company, over forty years ago. He undoubtedly knows more of this country than any white man now living. Large quantities of wood, cedar, and pine are obtained here. The altitude of Bridger Station is 6,780 feet. For the next two stations we shall ascend, until we eclipse the altitude of Creston. The bluffs are now nearer on either hand. We cross and recross the "Muddy" very often, the little stream being more crooked than the streets in Boston. Fifteen miles to

LEROY,

A small flag station. Passing on we observe the old overland road, where it comes down the mountains, crossing the railroad to the west, at Burns' old ranche, the route marked by the line of telegraph poles. Three miles west, on this stage road, are the Soda Springs. Nine miles west, and we arrive at

PIEDMONT STATION.

Unimportant, with an altitude of 7,123 feet. The country is rough and broken. To the south, the mountains are well timbered with pine and cedar. A great many ties were obtained in this section while the road was being constructed.

ASPEN,

Nine miles to the westward of Piedmont. This is the second highest point on the U. P. R. R., the elevation being 7,540 feet—is 839 miles from Sacramento, and 937 from Omaha. It derives its name from the high mountain to the north, called "Quaking Asp." The summit of this mountain is covered with snow during the most of the year. The "quaking asp," or aspen, a species of poplar, grows in profusion in the gulches and on the side of the mountain. The "old overland stage road" winds around the northern base, while the railroad girds its southern borders, nearly encircling it between the old and new; decay and death marking the one, life, energy and growing strength, the other. Leaving Aspen, we soon arrive at the site of the

BEAR RIVER CITY,

Of early railroad days, but now entirely deserted. It is situated in a little valley at the mouth of a ravine, where the old overland stage road comes down from the north of Quaking Asp Mountain. At one time this place was quite populous, and was supposed likely to become a permanent town. At this point, the roughs and gamblers who had been driven from point to point westward, made a stand, congregating in large numbers. They swore that they would be driven no farther; that here they would stay, and fight it out to the bitter end. The town was about two miles to the eastward of the river, and when the roughs felt that trouble was coming on them, they withdrew to the hills and organized for a raid on the town. Meanwhile some of the roughs remained in the town, and among them were three

noted garroters, who had added to the long list of their crimes that of murder. The citizens arose, seized and hung them. In this act they were sustained by the law-abiding people, also by the *Index*, a paper which had followed the road, but was then published here. This hastened the conflict, and on the 19th of November, '68, the roughs attacked the town in force. This attack was repulsed by the citizens, though not until the

BEAR RIVER CITY RIOT

Cost sixteen lives, including that of one citizen. The mob first attacked and burned the jail, taking thence one of their kind who was confined there. They next sacked the office and destroyed the material of the *Frontier Index*. Elated with their success, the mob, numbering about 300 well-armed desperadoes, marched up the main street and made an attack on a store, belonging to one of the leading merchants. Here they were met with a volley from Henry rifles, in the hands of brave and determined citizens, who had collected in the store. The mob was thrown into confusion, and fled down the street, pursued by the citizens, about thirty in number. The first volley and the running fight left fifteen of the desperadoes dead on the street. The number of wounded was never ascertained, but several bodies were afterwards found in the gulches and among the rocks, where they had crawled away and died. One citizen was slain in the attack on the jail. From this time forward the roughs gave Bear River City a wide berth.

The town declined as soon as the road passed that point, and now there is nothing left to mark the place, except a few posts and old chimneys, broken bottles and scattered oyster cans. About two miles beyond the old town site, we cross Bear river on a pile or trestle bridge, 600 feet long, and follow down the west bank for 11 miles over a fine bottom, nearly level. The bluffs are high and broken, coming close to the road, leaving but a narrow valley.

Near the crossing, an oil well has been discovered, which bids fair to become of some importance. Sulphur springs and coal mines have been found in the vicinity. Gold has been discovered also, but not in quantities sufficient to cause much excitement.

BEAR RIVER.

This stream rises about sixty miles to the south in the Uintah and Wahsatch Mountains. It has many tributaries, which abound in very fine trout. Quite a business is carried on in catching and salting them for the trade. The river here runs almost due north, to Port Neuf Gap. Before reaching the Gap, the river runs through Bear lake, and the valley of that name.

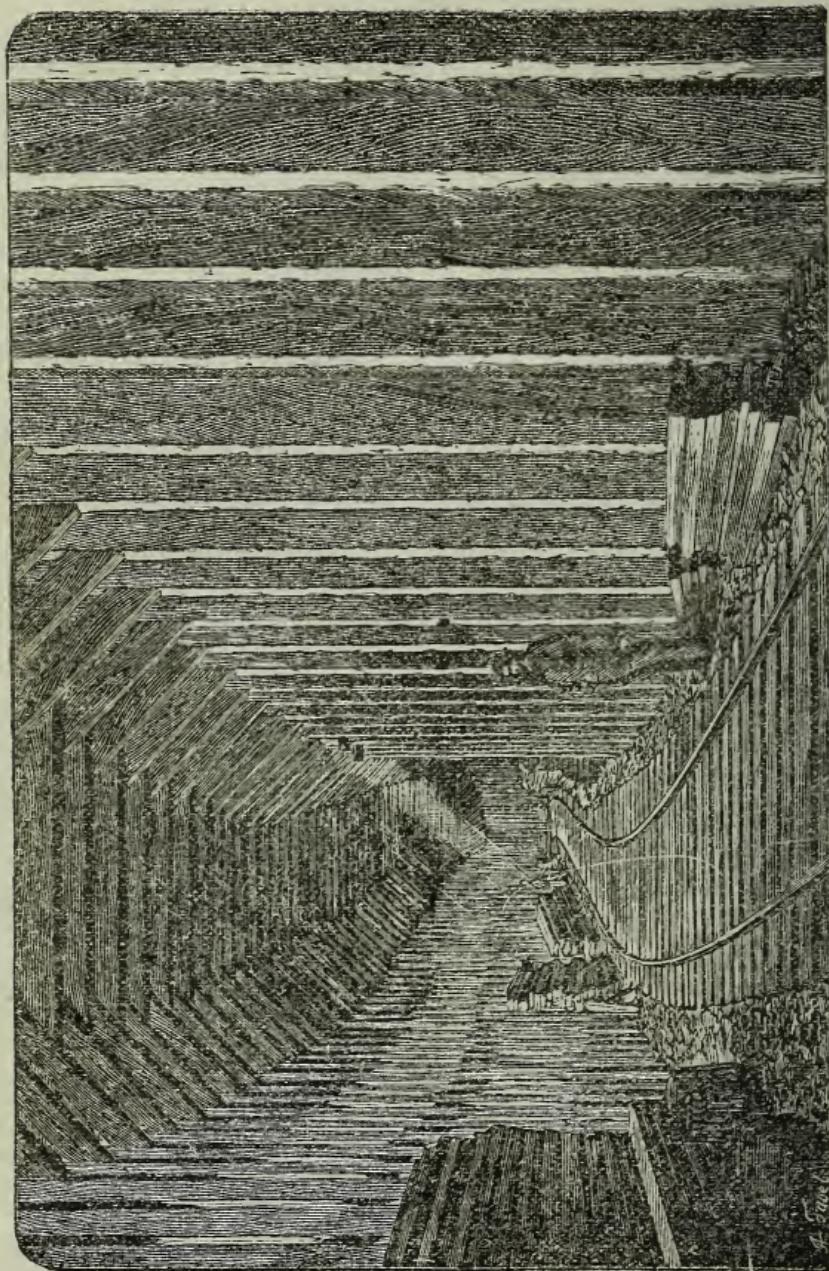
Bear Lake Valley is a point of great interest on account of the fertility of the soil, its romantic situation, the beautiful and grand scenery of rock, lake and mountain in that neighborhood. The valley lies in Rich county, the most northern county in Utah Territory, and is about 25 miles long, with a varying width.

The lake, from which it takes its name, is in reality a widening of Bear river. It is about 15 miles long by seven wide, and contains plenty of trout and other fish. There are some pretty Mormon settlements at different points along the lake shore.

There is a report, which is strongly believed by some of the old settlers, and it is sustained by Indian tradition, that aquatic monsters, whose shapes are difficult to describe—inhabit these waters. Whether this be the case or not, we do not pretend to say, but this we do know, we never saw them.

The entire region is wild and picturesque, and would well repay the tourist for the time spent in visiting it. About 30 miles distant, to the north, are the far-famed Soda Springs of Idaho, situated in Oneida county, Idaho Territory.

The usual routes by which this valley is reached are *via* Ogden or Corinne. By the former the route is shorter; by



Interior View of Snow Sheds on the Sierra Nevada Mountains, C. P. R. R.
See page 171.

the latter a better road. Should we leave Ogden, we proceed up Ogden canyon for 12 miles, across Ogden valley, and over a rough mountain road, a distance of over 80 miles further, into Bear Lake Valley.

If by way of Corinne, we proceed to Brigham City, four miles distant, and then up the Box Elder, and down the Wellsville canyons, 80 miles further, then across Cache valley, with its 600 square miles of beautiful lands, to Logan, the county-seat, 10 miles further. From this point the old road runs north 20 miles, through Richmond, Smithfield, and Hyde Park to Franklin, and then turns to the east through the mountains, 40 miles more. A new road is being constructed up Logan canyon which will materially shorten the distance.

At Port Neuf Gap, the river turns, and thence its course is nearly due south, until it empties into Great Salt Lake, near the town of Corinne. The course of the river can best be understood when we say that it resembles the letter U in shape. From where it rises it runs due north to latitude 42 deg. 30 min., then suddenly turning, it runs south to latitude 41 deg. 43 min., before it finds the lake. Within this bend lies the Wahsatch Mountains, a spur of the Uintah, a rugged, rough, bold, but narrow range.

We now return to the road which we left near the old Bear River City, six miles to

MILLIS.

A signal station, to accommodate the few people living above on Bear River. Passing down the stream, through the valley spoken of, we cross Yellow creek, one of the tributaries of Bear river, seven miles, and arrive at

EVANSTON.

This is a regular eating station, where trains from the East and West stop 30 minutes to dinner. The railroad company have erected here during the last year a 20-stall round house, repair shops, hotel, freight and passenger buildings, and the place has improved other-

wise very much. It now contains about 500 inhabitants. Elevation, 6,835 feet.

During the winter of 1868-9, this place was the "end of the track" so far as the delivering of passengers and freight was concerned.

Cranston is the county-seat of Uintah county, Wyoming, 957 miles from either Omaha or San Francisco, just half between the Missouri and the Pacific Ocean.

The railroad was completed to this place *late* in the fall of 1868, and a large amount of freight was delivered here for Salt Lake Valley and Montana.

Sulphur springs are close by, and an oil-well has been bored 200 feet with good prospects of success.

Sawmills supply lumber, for all local purposes, from the almost inexhaustible pine forests, on Bear River, to the southward. A branch railroad line is projected down Bear River from this place, which will reach out for the trade of Montana, and possibly further north. About two miles north, and to the right of the road, are some very valuable coal mines, which supply a large amount of coal to the railroad company. The mines are said to be very extensive, and easily worked. The coal is of excellent quality, and the mines are of incalculable benefit to the company. A large amount of coal is shipped from this mine west, to towns on the line of the "C. P.", and to Sacramento and San Francisco, California.

Soon after leaving Evanston we leave Bear River to the right, and follow up a beautiful little valley, nine miles to

WAHSATCH STATION.

Elevation, 6,879 feet. This station has been until recently a regular eating station, with round house and machine shops of the company located here; but a change has been made to Evanston, and the place is almost deserted.

Game is found in the hills—deer, elk, and antelope. In the Uintah and Wahsatch ranges, brown, black, and cinnamon bear are found. We might add that all the ranges spoken of are well-timbered with spruce and pine.

On leaving Wahsatch, we arrive at the divide and head of Echo canyon, one

half mile distant. Here we find the longest tunnel on the road, 770 feet in length, cut through hard red clay and sandstone. It is at present approached from the east by two long pieces of trestle work, one of which is 230 feet long and 30 feet high; the other, 450 feet long and 75 feet high, which will be filled in in time. It opens to the westward, into a beautiful little canyon, with a narrow strip of grassy bottom land on either side of a miniature stream, known as the North Fork of Echo. The hills are abrupt, and near the road, leaving scarcely more than room for a roadway, including the grassy land referred to. Along these bluffs, on the left hand side of the stream, the road-bed has been made by cutting down the sides of the hills and filling hollows, in some places from 50 to 75 feet deep.

Before the tunnel was completed, the road was laid temporarily from the divide into Echo canyon by a Z or zig-zag track, which let the cars down to the head of the canyon. The great difficulty to overcome here was the absence of spurs or sloping hills to carry the grade. Every thing seems to give way at once, and pitch headlong away to the level of the lake. The rim, or outer edge of the table lands, breaks abruptly over, and the streams which make out from this table land, instead of keeping their usual grade, seem to cut through the rim and drop into the valley below, there being no uplands to carry them.

ECHO CANYON.

By the present line of the road we enter the canyon proper at the little station of

CASTLE ROCK.

This has an elevation of 6,290 feet. Unless the coal-bearing veins which have been discovered below should be traced as far as this point, we cannot expect this station to reach any great importance. In the event of coal being found here, it would attain a better position as a coaling depot. It derives its name from the long line of sandstone bluffs on the right hand side of the can-

yon, which are worn and torn away until, in the distance, they have the appearance of the old feudal castles so often spoken of, so seldom seen, by modern tourists. For a long distance these rocks line the right hand bank of the canyon, their massive red sandstone fronts towering from 500 to 2,000 feet above the little valley, and bearing the general name of "Castle Rocks."

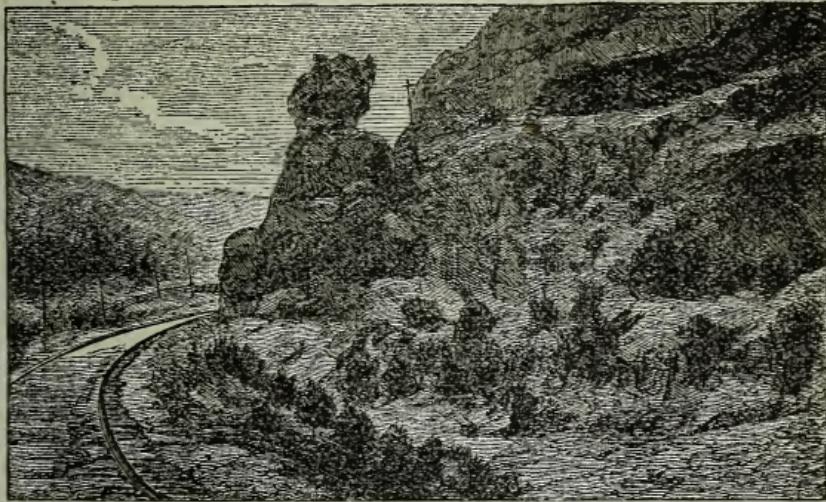
Now we descend the canyon amid some of the grandest and wildest scenery imaginable. We do not creep on it as though we mistrusted our powers, but with a snort and roar the engine plunges down the defile, which momentarily increases to a gorge, only to become, in a short distance, a grand and awful chasm. About seven miles below Castle Rock, the traveler can behold the natural bridge, a conglomerate formation, spanning a cleft in the wall on the right hand side. This

HANGING ROCK

Of Echo has more than a local reputation. (See Illustration.) It gave the name to one of the overland stage stations, when the completion of this road was, but in the dreams of its sanguine projectors, an undefined and visionary thing of the future. The rock is close by the old stage road at the foot of the mountain, and looks as though the elements had been wearing the center of it away for centuries, until they had succeeded in cutting it in two, save the harder crust, which now spans the channel made by old father Time.

The left hand side of the canyon presents but few attractions, compared with the bolder and loftier bluffs opposite. The left hand wall breaks away and recedes in sloping, grassy hillsides, while we know not what lies beyond these walls to our right, for they close the view in that direction. Wall, solid wall, broken wall, walls of sandstone, walls of granite, and walls of a conglomerate of both, mixed with clay, rise far above us, and shut from our vision whatever lies beyond.

The beauties of Echo canyon are so



PULPIT ROCK, (foot of Echo Canyon.)

many, so majestic, so awe inspiring in their sublimity, that there is little use in calling the traveler's attention to them. But as we rush swiftly along, seemingly beneath these towering heights, we can note some of the most prominent features.

The only difficulty will be that one will hardly see them all, as the cars thunder along, waking the echoes among these castellated monuments of red rock, whose towering domes and frowning buttresses gave the name to this remarkable opening in the Wah-satch Mountains. Four miles below Hanging Rock the walls rise in massive majesty—the prominent features of the canyon. Rain, wind and time have combined to destroy them, but in vain. Centuries have come and gone since that mighty convulsion shook the earth to its center, when Echo and Weber canyons sprung into existence—twin children, whose birth was heralded by throes, such as the earth may never feel again, and still the mighty wall of Echo remains, bidding defiance alike to time and his co-laborers, the elements; still hangs the delicate fret and frost work from the walls; still the pillar, col-

umn, dome and spire stand boldly forth in all their grand, wild and wierd beauty to entrance the traveler, and fill his mind with wonder and awe.

MORMON FORTIFICATIONS.

About six miles below Hanging Rock, up on the topmost heights of the towering cliffs, a thousand feet above the bed of the canyon, can be seen the fortifications erected by the Mormons, to defend this pass against the army under Johnson, sent out in '57 by Uncle Sam. These fortifications consist of massive rocks, placed on the verge of the precipice, which were to be toppled over on the heads of the soldiers below, but the experiment was never made, so the rocks remain, to be used on some other foe, or as evidences of a people's folly.

On goes the engine, whirling us past castle, cathedral, towering column and rugged battlement, past ravines which cut the walls from crest to base in awful chasms, shooting over bridges and flying past and under the overhanging walls; when, after crossing the Echo creek thirty-one times in twenty-six miles, we rush past the Witches' Cave and Pulpit Rock, our engine giving

a loud scream of warning to the brakeman who, "throwing on the brakes," brings the train to a stop, and we get out once more to examine the country, Weber river and Echo City station.

Before we take final leave of Echo canyon we will relate an incident, thrilling in its nature; but happily ending without serious results, which occurred there during the construction of the road from Echo City to the mouth of Weber, and is known as

PADDY MILES' RIDE.

Mr. Miles, or "Paddy" as he was familiarly called, was foreman to the Case-mint Brothers, who laid the track of the U. P. R. R. One morning, Paddy started down Echo canyon with a long train of flat cars, sixteen in number, loaded with ties and iron rails for the road below Echo City, where were then, as now, the station, switches, etc. The reader will remember that, from the divide to the mouth of Echo canyon is heavy grade, no level place on which cars would slack their speed.

The train had proceeded but a few miles down the canyon, going at a lively rate, when the engineer discovered that the train had parted, and four loaded cars had been left behind. Where the train parted the grade was easy, hence that portion attached to the locomotive had gained about half a mile on the stray cars. But when discovered, they were on heavy grade and coming down on the train with lightning speed. What was to be done? The leading train could not stop to pick them up, for, at the rate of speed at which they were approaching, a collision would shiver both trains, destroying them and the lives of those on board.

There were two men, Dutchmen, on the loose cars, who might put on the brakes, and stop the runaway. The whistle was sounded, but they heard it not; they were fast asleep behind the pile of ties. On came the cars, fairly bounding from the track in their unguided speed, and away shot the locomotive and train. Away they flew, on

around curves and over bridges, past rocky points and bold headlands; on with the speed of the wind, but no faster than came the cars behind them.

"Let on the steam," cried Paddy, and with the throttle chock open, with wild terrible screams of the whistle, the locomotive plunged through the gorge, the mighty rocks sending back the screams in a thousand ringing echoes.

"Off with the ties," shouted Paddy, once more, as the whistle shouted its warning to the station men to keep the track straight and free, for there was no time to pause—that terrible train was close on to them, and if they collided, the canyon would have a fearful item added to its history. On went the train past the side-tracks, the almost frantic men throwing off the ties, in hopes that some of them would remain on the track, throw off the runaways, and thus save the forward train. Down the gorge they plunged, the terror keeping close by them, leaping along—almost flying, said one, who told us the tale—while the locomotive strained every iron nerve to gain on its dreaded follower. Again the wild scream of the locomotive of "switches open," rung out on the air and was heard and understood in Echo City. The trouble was surmised, not known, but the switches were ready, and if the leading train had but the distance it could pass on and the following cars be switched off the track, and allowed to spend their force against the mountain side. On shot the locomotive, like an arrow from the bow, the men throwing over the ties until the train was well nigh unloaded, when just as they were close to the curve by which the train arrives at the station, they saw the dreaded cars strike a tie, or something equally of service, and with a desperate plunge rush down the embankment, some 15 feet, to the little valley, and creek below. "Down breaks," screamed the engine, and in a moment more the cars entered Echo City, and were quietly waiting on the side-track for further developments. The excited crowd, alarmed by the repeated whistling, was soon in-

formed of the cause of these screams, and immediately went up the track to the scene of the disaster, to bring in the dead bodies of the unfortunate Dutchmen, who were surely crushed and torn in pieces. When they arrived at the scene of the disaster, they found the poor unfortunates sitting on the bank, smoking their pipes and unharmed, having just woke up. The first they knew of the trouble was when they were pitched away from the broken cars on the soft green sward. The debris of car frames, wheels and ties gave them the first intimation they had received that something was the matter. It is related that a young and eccentric lady from San Francisco, who was on her bridal tour, happened to be at Echo City when the train came thundering in. On learning the trouble and narrow escape of the party, she took her husband's arm, remarking, "I don't want any of that in mine; no, thank you, none for Joe."

WEBER RIVER

Rises in the Wahsatch Mountains, 70 miles to the south, its waters being supplied by thousands of springs, many larger tributaries, and the everlasting snows of this rugged mountain range. It empties into the Great Salt Lake, just below Ogden, about 50 miles from Echo City. The valley of the Weber, from Echo City, up to its source, is very fertile, and thickly settled by the Mormons. Three miles above this station is Chalk creek, where a fine coal bank has been discovered. Three miles beyond this point is Coalville, a Mormon settlement of 1,000 inhabitants—a thriving village. Its name is derived from the carboniferous formations existing there. The coal beds are extensive, some of the veins being of good quality, others being lignite. Most of the coal used in Salt Lake City comes from this place. It is 45 miles from this point to the capital of Utah.

Seven miles beyond Coalville is the pleasant village of Winship, situated at the junction of Silver Creek and Weber

river, containing 1,000 inhabitants. The "old stage road" follows up Weber to this point, thence up Silver creek, via Parley Park, and thence to Salt Lake City, 50 miles distant from Echo.

PARLEY PARK.

This is a beautiful valley on the stage road, about five miles long by three miles wide. It is very fertile, producing fine crops of small grain. Several hundred settlers have located and made themselves homes. There is a fine hotel, once kept as a stage station, now kept by William Kimball, oldest son of Heber C. Fish in any desired quantity can be caught in the streams, and game of many varieties, including deer and bear, inhabit the adjoining mountains. It is one of those pleasant places where one loves to linger, regrets to leave and longs to visit again. We earnestly advise tourists to visit it; they will not regret a week or month among the hills and streams of the upper Weber.

Near this point good gold mines have been found, but never worked much. They are said to "prospect" very rich by those who are acquainted with them.

We will now retrace our steps and take a momentary view of

ECHO CITY.

Elevation, 5,540 feet. From Omaha, 991 miles, and 785 from Sacramento. The town is situated at the foot of the bluff, which towers far above it. As we enter the city from Echo, we turn to our right, close at the base of the cliff, where stands Pulpit Rock, at our right [see illustration], and the old stage ranche on the left, just where it appears that we must pitch off into the river, and the town is all before us. It looks pleasanter than it does if you stay there longer, but if you like to hunt and fish you can render a lengthy stay quite pleasant. Echo creek, Chalk creek, Silver creek and Weber river afford excellent troutting, while antelope, are shot near the city. The mountains abound in bear, deer and elk.

Echo has many natural advantages,

being a central point for a rapidly improving country. It now contains about 750 inhabitants, including those settlers near by and the railroad employes. Coal beds, extensive ones, are found near by, as well as an indefinite quantity of iron ore, which must possess a market value, sooner or later.

Near Echo City, across the Weber, a ravine leads up the mountain side, winding and turning around among the gray old crags, until it leads into a beautiful little dell, in the center of which reposes a miniature lakelet, shut in on all sides by the hills. It is a charming, beautiful tiny little gem, nestled amid a gray, grand setting of granite peaks and pine clad gorges—a speck of delicate etherealized beauty, amid the strength and ruggedness of a coarser world.

WEBER CANYON.

We shall not attempt to give a minute description of this remarkable place, which would fill a volume were its beauties fully delineated, and each point of interest noted. But as one of the grand and remarkable features of the road, it demands a notice, however meager, at our hands. For about 40 miles, the river rushes, foaming along, between two massive mountain walls, which close the landscape on either hand. Now, the torrent plunges over some mighty rock which has fallen from the towering cliff; anon, it whirls around in frantic struggles to escape from the boiling eddy, thence springing forward over a short, smooth rapid, only to repeat the plunge again and again, until it breaks forth into the plains, whence it glides away toward the lake, as though exhausted with its wild journey through the canyon.

From the time of leaving Echo City, the traveler must closely watch the canyon walls, for fresh objects of wonder and interest will spring suddenly into sight on either hand.

Leaving Echo City, the cars speed along the banks of the Weber for about six miles, when they enter the Narrows

of Weber canyon, through which the road is cut for two miles, most of the way in the side of the steep mountain that drops its base in the river bed. Shortly after entering the Narrows, the

ONE THOUSAND MILE TREE,

is passed—a thrifty branching pine—bearing on its trunk a sign-board that tells the western bound traveler that he has passed over 1,000 miles of railway from Omaha. [See illustration.] This living mile stone of nature's planting, has long marked this place; long before the hardy Mormon passed down this wild gorge; long before the great transcontinental railroad was even thought of. It stood a lonely sentinel, when all around was desolation; when the lurking savage and wild beast claimed supremacy, and each in turn reposed in the shade of its waving arms. How changed the scene! The ceaseless bustle of an active, progressive age, the hum of labor, the roar and rush of the passing locomotive has usurped the old quiet, and henceforward the lone tree will be, not a guide to the gloomy past, but an index of the coming greatness of a regenerated country.

SERRATED ROCKS OR DEVIL'S SLIDE.

Near the "thousand mile tree" two ridges of granite rock are seen on the left hand side of the road, reaching from the river nearly to the summit of a sloping, grass-clad mountain. They are from 50 to 200 feet high, narrow slabs, standing on edge, as though forced out of the mountain side. The two ridges run parallel with each other, about 100 feet apart, the space between being covered with grass, wild flowers and climbing vines. [See illustration.]

Rushing swiftly along, we lose sight of these rocks to behold others more grand, of different shapes, and massive proportions. The mountains seem to have been dovetailed together, and then torn rudely asunder, leaving the rough promontories and rugged chasms, as so many obstacles to bar our progress. But engineering skill has triumphed over



ONE THOUSAND MILE TREE, (West from Omaha.)

all. Where the road could not be built over or around these points, it is tunneled under. Now, we shoot across the river, and dart through a tunnel 550 feet long, cut in solid rock, with heavy cuts and fills at either entrance. Just before entering this tunnel, high up to the left, formerly stood "Finger Rock," as seen in the illustration, but which has been broken away, so as not to be visible now. The frowning cliffs bar our further way, and again we cross the roaring torrent and burrow under the point of another rocky promontory. Here the road stretches across a pretty little valley, known as Round Valley.

Dashing along, with but a moment to spare in which to note its beauties, we enter the narrowing gorge again, where the massive walls close in and crush out the green meadows. Between these lofty walls, with barely room for the track between them and the foaming torrent at our feet, on, around a jutting point, and again we emerged into a lengthened widening of the canyon, and we pause for a moment at

WEBER STATION.

This station lies between two Mormon settlements, which, taken in connection,

are called Morgan City. The buildings are mostly of logs and sun-dried bricks. The villages are separated by the river, which flows through bottom land, much of which is under cultivation for 10 miles.

The road follows down the right hand bank through this valley until just below this station, when it crosses to the left hand side, which it follows for two miles further, between towering mountains, the valley now lost in the narrow, gloomy gorge, when suddenly the whistle shrieks the password as we approach

DEVIL'S GATE STATION.

Twelve miles from Weber. Soon after leaving the station, the brink of the torrent is neared and the wild scenery of the Devil's Gate is before us. Onward toils the long train across the bridge; 50 feet above the seething cauldron of waters, where massive frowning rocks rear their crests, far up toward the black and threatening clouds which hover over this witches' cauldron. With bated breath, we gaze on this wild scene and vainly try to analyze our feelings, in which awe, wonder, and admiration are blended. No time for thought, as

to how or when this mighty work was accomplished; no time nor inclination to compare the work of nature with the puny work beneath us, but onward, with quickened speed, down the right-hand bank of the stream; on between these massive piles, worn and seamed in their ceaseless struggles against the destroying hand of time; on to where yon opening of light marks the open country; on, past towering mountain and toppling rock, until we catch a view of the broad, sunlit plains, and from the last and blackest of the buttresses which guard the entrance into Weber, we emerge to light and beauty, to catch the first view of the Great Salt Lake—to behold broad plains and well cultivated fields which stretch their lines of waving green and golden shades beyond.

UINTAH STATION.

We have now passed through the Wahsatch Mountains, and are fairly in the Great Salt Lake Valley. The elevation at this point is 4,560 feet, 2,319 feet lower than Wahsatch, 58 miles to the Eastward. At this station quite a number of new buildings have been erected during the year.

Near the station, on this broad bottom, in 1862, was the scene of the Morrisite massacre, related by Bill Hickman, in his confession, recently published, and which lays bare some of the most fearful crimes ever committed in the name of religion in *this or any age of the world*.

Here 500 men of Brigham Young's Mormon Legion, and 500 men who volunteered for the occasion, with 5 pieces of artillery, commanded by Robert T. Burton, attacked the "Morrisites," and after three days' skirmishing, and after a score or more had been killed, the Morrisites surrendered. The noble Burton after the surrender took possession of everything he could find in the name of the Church; shot down, like a dog, Joseph Morris—an apostate Mormon, whose only fault was that he claimed to be the true Prophet of God, instead of Brigham Young; and several others—*two being women*—were killed because

they begged Burton to save the life of their Prophet. The followers of Morris consisted of about 90 able-bodied men, mostly unarmed, and over 300 old men, women, and children. The prisoners were all taken to Salt Lake City and condemned, and those who were able to work had their legs ornamented with a *ball and chain*, and were put to picking stone to build the Mormon Temple. On the 9th of March, 1863, these parties were all pardoned by Hon. S. S. Harding, who had that Spring arrived in Utah as Governor of the Territory.

The road winds around to the right soon after leaving the station, follows the base of the mountains, with the river on the left. We pass through a fertile country, dotted with well-tilled farms, for 8 miles to

OGDEN STATION.

Elevation, 4,301 feet. From Omaha, 1,032 miles, San Francisco, 882 miles.

At this station the Union & Central Pacific Railroad Co. have a union depot, large freight houses, round houses, machine and repair shops, and employ a large number of men. It is a regular eating station, and a good restaurant is kept in the fine building erected by the company.

At present—May 1st, 1872—it is the junction of the Union & Central Pacific Roads, but the legal junction is about 6 miles further west, as we shall explain hereafter.

OGDEN CITY.

The business part of the town is three-fourths of a mile from the depot; the Utah Central about a quarter of a mile nearer the center of the city. The latter cars, however, back down to the Union depot for passengers, thus connecting the three roads at one and the same station, taking passengers from the same depot.

The city is at the mouth of Ogden canyon, one of the gorges which pierce the Wahsatch range and between the Weber and Ogden rivers. It has a population of about 3,500. The Ogden House is



BILL HICKMAN,
The Danite Chief of Utah.

the principal hotel. The town is mostly Mormon, the schools and churches being under the control of the Church of Latter Day Saints. It is the county-seat of Weber county, and will in time become a place of considerable importance, owing to the fact that it is the terminus of the Utah Central, and in close proximity to the junction of the Union & Central Pacific Railroads. The Mormons have a Tabernacle here, and a semi-weekly newspaper, "The Ogden Junction."

The scenery immediately around Ogden is not very striking, but still there is enough to interest the tourist for a day, if he but take the trouble to wander among the hills and along the can-

yons. Ogden canyon is about five miles long, and from its mouth to its source, from plain to mountain top, the scenery is grand and imposing. About six miles from Ogden, up in the mountains behind the town, is a lovely little valley called "the basin," watered by mountain streams and covered with a luxuriant growth of grass.

Some excitement was created in the spring of 1871 by the reports of rich tin mines being discovered near the town, but so far nothing of any value has been developed.

Before proceeding further, we will take a hasty view of Utah Territory, beginning with the Utah Central Railroad.



BRIGHAM YOUNG,
President of the Utah Central Railroad.

OFFICERS:

WILLIAM JENNINGS, *Vice President.*

DANIEL H. WELLS, *Treas.*

JOHN W. YOUNG, *Secretary.*

JOSEPH A. YOUNG, *Gen. Supt.*

FERAMORZ LITTLE, *Ass't Gen. Supt.*

The Utah Central Railroad.

The Utah Central Railroad connects Salt Lake City with the trans-continental line at Ogden. The road is 36 miles long—owned and controlled by the citizens of Utah Territory. Ground was broken at Ogden on the 17th of May, '69, and the enterprise was inaugurated with due ceremonies, Brigham Young and the chief dignitaries of the Mormon church being in attendance. The route

of the road lies through a thickly settled and highly cultivated country, bordering the lake for 20 miles, passing close to the thriving villages of Kaysville, Farmington, Centerville and Bountiful. From the cars we get a good view of Great Salt Lake, the waters of which are so exceedingly salt, that no living thing can exist therein. But in summer it is a most delightful place to bathe, the placid waters being warm and so very buoyant, as to enable one to float

on its surface with but little or no effort. Bathing in the lake is very invigorating and strengthening, and said to be very beneficial in chronic diseases. We shall speak of Salt Lake again at the summit of Promontory Point, where the finest view of these waters can be had. Within three miles of Salt Lake City, the road passes a small bay—utting out from Hot Spring Lake—and thence to the city by easy grade, entering the town at its northwestern extremity.

UTAH TERRITORY

Contains 65,000 square miles—which includes large tracts of wild mountainous and barren country. At present most of the lands under cultivation—and the meadow lands—are around the lakes and in the neighboring mountain valleys.

This area is very productive when irrigated; grains, fruits and vegetables maturing readily, and yielding large returns. In the territory there are about 90,000 acres under cultivation, but the greater portion have to be irrigated in order to produce anything like a crop.

Rich veins of Gold, Silver, Iron, and nearly all the metals found in the "Great West," exist in Utah, and had it not been for the "Councils" of Brigham Young, to his followers, the Mormons, not to prospect for minerals, under pain of excommunication—"better starve"—and his exclusion of the "Gentiles" under pain of death, Utah might to-day be an honored State, in the great family of States, with a *developed mineral wealth second only to California, and possibly the first.* The whole country within her borders would be illuminated with the perpetual fires of her "Smelting Furnaces," and resound with the thundering echo and re-echoes of the thousands of descending stamps grinding out the wealth which would cause the "wilderness to blossom like the rose."

But thank God, and the Pacific Railroad, these Councils and this exclusion no longer prevail. In evidence of this we point you to the great number of rich silver mines discovered in Utah within the passed 18 months, in the Wahsatch

Mountains on the east, the Oquirrh range on the west, in Bingham, East, Big, and Little Cottonwood Canyons, in Southern Utah, and in fact all over the Territory. A miner can now "prospect," a "Gentile" can now engage in business without fear of being "lost" by a Bill Hickman, or being warned *out* of the territory, simply because he is *not* a Mormon, and *did not* help to build the "roads and bridges." Again, thank God—and the Pacific Railroad—for such a glorious revolution in Utah. The "Bull's Eye" don't work worth a cent.

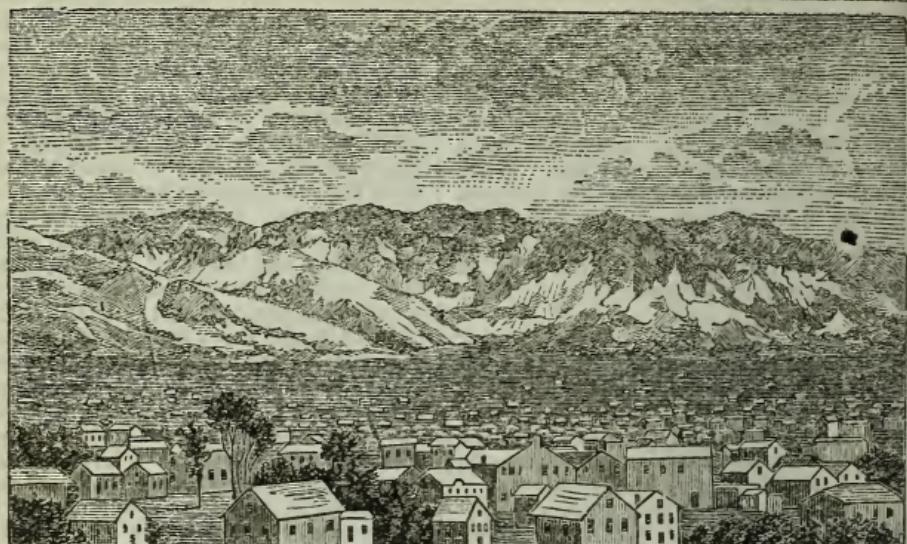
In Little Cottonwood Canyon, 17 miles southeast of Salt Lake City, is located the "Emma," which is thought to be one of the richest argentiferous galena mines in the world. We have not the space to devote to a description of the mines were we able. They appear to be inexhaustible and very rich. For a very complete mining map of Utah, see another page.

There are quite a number of smelting furnaces now in operation in various parts of the Territory and in Salt Lake City, besides more in progress of erection. Yet mining has hardly commenced in Utah.

At Rush Valley, 40 miles west of the city, on the old overland stage road, extensive gold mines have been discovered—gold-bearing quartz and placer mines—known as Rush Valley Mining District. The general character of the ores is argentiferous galena, which is worked by reduction. Three furnaces are now in operation. The ores are easily smelted, and yield handsome returns. The best point at which to leave the cars to proceed to these mines is Corinne. Taking the steamer, cross the lake to Stockton, thence to the mines.

Iron ore exists in large quantities in Iron and Summit Counties. In the former, iron works were erected in 1852, and a small quantity of iron was manufactured, but owing to the "want of fuel" they said—but the fear of "Council" in reality—the enterprise was abandoned.

Another successful effort in that line was made in June, '68, by the Union



SALT LAKE CITY, (Wahsatch Mountains in the distance.)

Iron Company, who then commenced the erection of furnaces on the Pinto, in Iron county, and by January they had two finished and in operation.

Coal mines abound in various parts of the Territory, but the principal mines now worked are at Coalville, in Summit county. In Sanpete an excellent quality of blacksmithing coal is obtained in unlimited quantities. Copper, lead and bismuth and limestone are found, though but little attention has yet been given to these minerals.

SETTLEMENT OF THE TERRITORY.

Utah was settled during '47. On the 24th of July the advance guard of the Mormon emigration, numbering 143 men, entered Salt Lake Valley; five days later 150 more men arrived, under Captain Brown, and on July 31st Great Salt Lake City was laid out.

On the 9th of March, '49, the first election was held under the provisional government of the State of Deseret, by which name the Territory was then known. Brigham Young was elected Governor. An application had been made to Congress for a State govern-

ment immediately previous to holding the election. What number of people were then residents of the Territory does not appear. At present the population is about 80,000.

SALT LAKE CITY.

This is one of the most beautiful and pleasantly located of cities. It is situated at the foot of a spur of the Wahsatch Mountains, [See illustration] the northern limits, extending on to the "bench" or upland, which unites the plain with the mountain. From the east two wagon roads enter the city, *via* Emmigrant and Parley canyons.

The surrounding scenery is bold and impressive. The lofty range of the Wahsatch forms the back ground, lifting its rugged peaks above the clouds. Piles of snow can be seen in the gorges where the warm sunlight has not the power to melt it. Though the mountain peaks are bare in summer, these narrow defiles and deep chasms retain their icy treasures, as though they feared the advent of life, warmth and vegetation. Timber of various kinds—pine, maple, oak, etc.,—is found in the

hills in abundance, but is difficult of access.

The principal material used in building the city was stone and "adobes" (sun-dried brick), hence it presents the appearance of a Spanish town in that respect.

The streets are wide, bordered with shade-trees, and laid out at right angles. (See map of the city in another part of the GUIDE.) Along each side of the streets is a clear, cold stream of water from the mountain canyons, which, with the numerous shade-trees and gardens, gives the city an indescribable air of coolness, comfort, and repose. The city contains a population, according to the census of 1870, of 12,854.

The traveller who visited this city some years ago before the discovery of the rich silver mines, would be surprised by a visit now at the remarkable changes noticeable on every hand; all is life and energy; everybody seems to have a pocketful of certificates of mining property, and you hear of extensive preparations making on every side with a view to an extensive prosecution of various mining enterprises. The public buildings are not very numerous. They consist of a court-house, city hall, city prison, theatre, and

THE TABERNACLE.

This immense building is the first object one beholds on entering the city. The building is oblong in shape, having a length of 250 feet from east to west, by 150 in width. The roof is supported by 46 columns of cut sandstone, which, with the spaces between used for doors, windows, etc., constitute the wall. From these pillars or walls, the roof springs in one unbroken arch, forming the largest self-sustaining roof on the continent, with one notable exception—the Grand Union Depot recently erected by Commodore Vanderbilt in New York. The ceiling of the roof is 65 feet above the floor. In one end of this egg-shaped building is the organ—the second in

size in America. The Tabernacle is used for church purposes, as well as for other large gatherings of the people. With the gallery, which extends across both sides and one end of this immense building, it will seat 8,000 people. The Mormon temple is one of the buildings *on paper*, as we have only the foundation as yet, with very little prospect of its ever being completed. The dimensions of the foundations are 99x186½ feet, and we shall have plenty of time to prepare our description of the building before its completion; we leave it for the present, simply remarking we do not believe the child is born—or ever will be—that will see the building completed.

The St. Mark's Mission was established some years ago by the Protestant Episcopal Church. The service is held in Independence Hall, where a large Sunday-school also receives instruction. Some other denominations have endeavored to get a foothold in this city, but have not been very successful.

The Odd Fellows and Masons each have a lodge here. There are no free schools in Utah. Stage lines take passengers to all points not reached by the Utah Southern R. R., which is now nearly completed to Utah Lake, nearly 50 miles south, and is being extended southward. The newspapers are not long-lived in Salt Lake City, unless they advocate the Mormon doctrine.

The *Deseret News*, daily and weekly, edited by Geo. Q. Cannon, is published here. It is the church organ, and very zealous in support of the "peculiar ideas" taught by the Mormon Church. The *Salt Lake Herald*, daily and weekly, claiming to be a "live paper for live people, free and independent"—yet a good Mormon. The *Mormon Herald*—weekly—what it advocates it would be hard to say. It is owned by the Godby Seceders. At this time the only Gentile paper is said to be the *Tribune*, daily and weekly.

There are several good hotels—the Townsend, Revere, Salt Lake, and the White House being the principal.

HOLINESS TO THE LORD
ZION'S
CO-OPERATIVE
MERCANTILE
INSTITUTION.

The above cut represents the Mormon "Co-operative Sign"—called by the Gentiles the "Bulls Eye." At the Mormon conference, in the fall of 1868, all good Mormon merchants, manufacturers and dealers who desired the patronage of the Mormon people, were directed to place this sign upon their buildings in a conspicuous place, that it might indicate to the people that they were sound in the faith.

The Mormon people were also directed and *warned* not to purchase goods or in any manner deal with those who refused or did not have the sign,—the object seemed to be only to deal with their own people, to the exclusion of all others.

The result of these measures on the part of the church was to force many who were Gentiles or Apostate Mormons to sacrifice their goods, and leave the Territory for want of patronage. Some few, however, remained. Among whom was J. K. Trumbo, an auction and commission merchant, who procured the painting of what was known as the



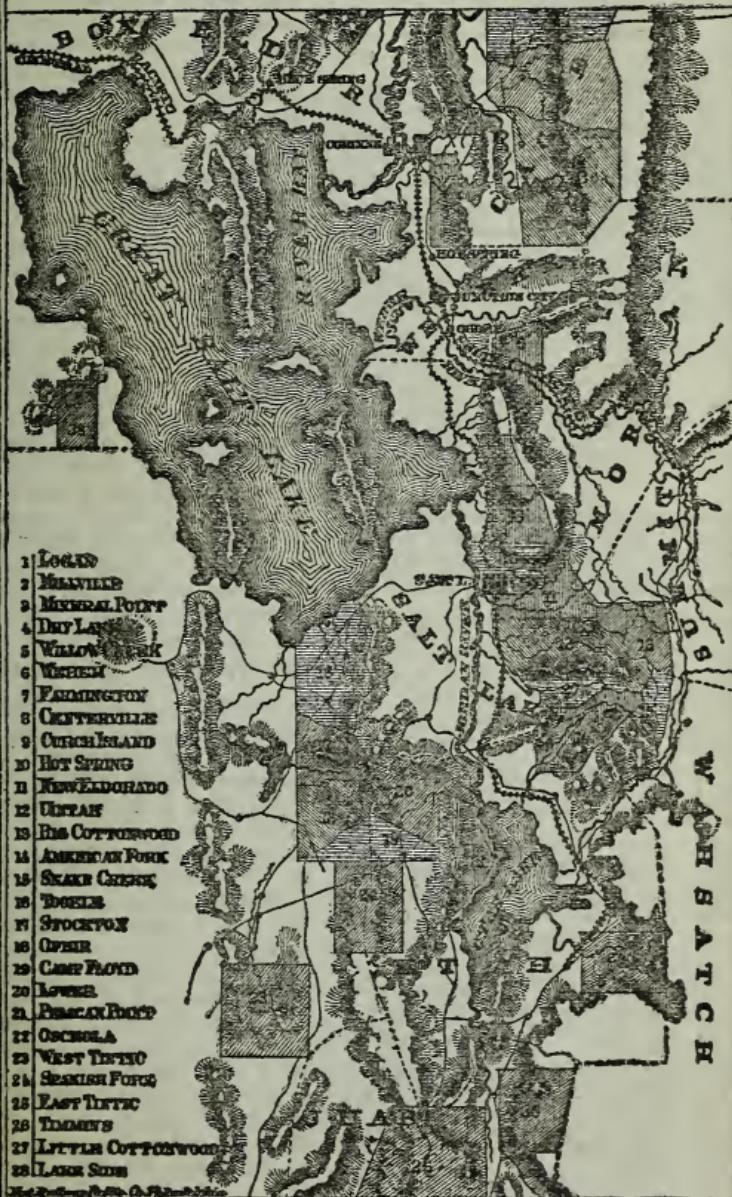
"GENTILE SIGN."

This sign was placed in position on the front of his store, on the morning of the 26th of February, 1869, in a similar position to those of the Mormons. All day wondering crowds of people of all classes, little and big, hovered about the premises, and many opinions were expressed as to the propriety of the sign, and whether it would be allowed to remain by the Mormons; but at about 7 o'clock in the evening the problem was solved, by a charge made by several young Mormons, who, with ladders climbed upon the building and secured ropes upon the sign, while the crowd below tore it down, and dragged it through the streets, dashing it to pieces. This should be a warning to all "Gentiles" in future, not to expend their money in signs to be placed on their stores in Utah—unless they have permission.

NEW MINING MAP OF UTAH

COMPILED FROM U.S. GOVT. SURVEYS.

SHOWING THE EXACT LOCATION OF THE BIGGEST & MOST
EXTENSIVE MINING DISTRICTS ON THE CONTINENT,
EXTENDING 150 MILES NORTH & SOUTH.



HOT SPRINGS.

One mile north of the city are the celebrated warm springs, where the city baths are situated. These are the disputed springs, to obtain which, it is supposed by many, Dr. Robinson was murdered by the Mormons, that the city might obtain possession. Suit is still pending. The baths are well patronized by invalids, who visit them for health, relying on their medicinal qualities to remove their ailments. The following is an analysis of the water, as made by Dr. Charles T. Jackson, of Boston:

"Three fluid ounces of the water on evaporation to entire dryness in a platina capsule gave 8.25 grains of solid, dry, saline matter.

Carbonate of Lime and Magnesia.....	0.240	1.230
Per Oxide of Iron.....	0.040	0.208
Lime.....	0.545	2.907
Chlorine.....	3.454	18.421
Soda.....	2.877	15.344
Magnesia.....	0.370	2.073
Sulphuric Acid.....	0.703	3.748
	8.229	43.981

"It is slightly charged with Hydro Sulphuric Acid Gas, and with Carbonic Acid Gas, and is a pleasant, saline mineral water, having valuable properties belonging to saline sulphur springs."

The usual temperature is 102 dg. F."

Two miles further are the Hot Springs, said to be similar in quality to those named, but much warmer and of a larger volume of water. The spring boils out at the foot of a rock—where a sloping spur of the mountain strikes the plain—in a very large volume, forming a creek several feet in width, with a depth of six inches, and it is very hot. There is no nonsense about this spring; we have tried the waters thereof, and came away with skinned fingers. It will boil an egg in four minutes. Close by, lying to the westward, is a charming little lake, about three miles long and somewhat over a mile in width. It is formed from the waters of these springs, and is called "Hot Spring Lake." It is bordered on one side with trees, which give the place a very pleasant appearance in the summer. In the winter, when the lake is frozen over, it is a favorite resort for skating parties.

JORDAN RIVER.

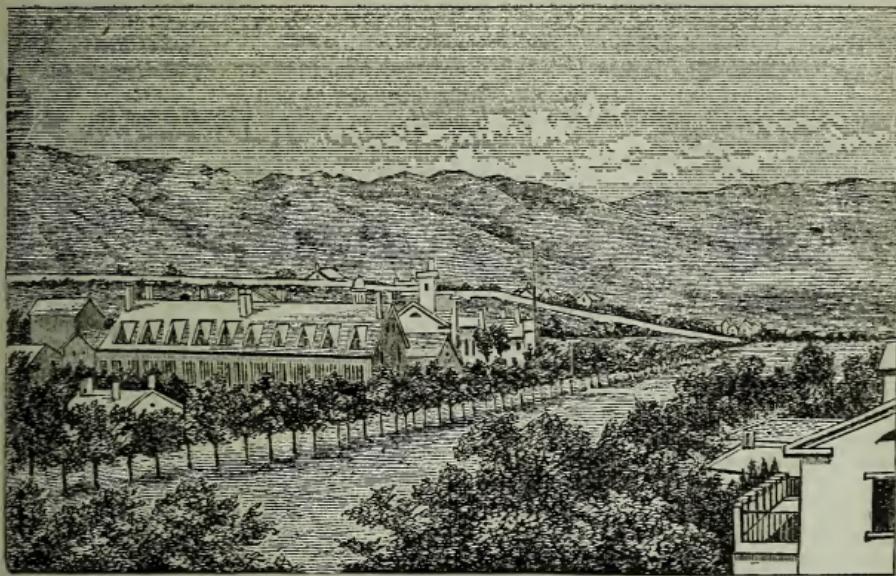
This stream is the outlet of Utah Lake, which lies about forty miles south. It empties into the Great Salt Lake. The time is not far distant, when, according to some modern prophets, the cars will stop for dinner at Utah Lake, on their way to the City of Mexico, Panama South America, and Cape Horn.

CAMP DOUGLAS.

This post was established October 26, 1862, by General E. P. Conner, Third Regiment of California Volunteer Infantry. It is on the east side of the river Jordan, four miles from that stream, three miles east of the city of Salt Lake, and 15 miles southeast of Salt Lake. Latitude, 40 deg. 46 min. 02 sec.; longitude, 111 deg. 53 min. 34 sec. Its location is on a sloping upland or bench at the base of the mountains and overlooking the city. The garrison consists of companies A, C, and G, of the Seventh Infantry, and the headquarters of that regiment. It is under command of Brevet Major-General John Gibbon, post commander; Surgeon W. C. Spencer, U. S. A., present post surgeon; Rev. Thomas W. Haskins, post chaplain; E. B. Zabriskie, post trader.

SKETCH OF BRIGHAM YOUNG.

Brigham Young, President and Prophet, of the Mormon Church, or "Church of the Latter Day Saints" (whose portrait will be found on another page,) stands prominently forward as one of the most remarkable men of the 19th century. He was born in Whittingham, Windham county, Vermont, on the 1st day of June, 1801. His father, John Young, was a revolutionary veteran, and served in three campaigns under Washington. The family consisted of six daughters and five sons, of whom Brigham was the fourth. In early life he was connected with the Methodists, and at this time he followed the occupation of carpenter and joiner, painter and glazier. He was first married in 1824, and in the spring of 1830 first saw the "Book of Mor-



BRIGHAM YOUNG'S RESIDENCE.

mon," of which he afterwards became so firm a believer and prominent supporter. In April, 1832, he was baptized a member of the "Church of Jesus Christ of Latter Day Saints." During the previous January he had visited Columbia, Pennsylvania, where there was a branch of the church—making a lengthy stay—that he might become better acquainted with its principles. This is characteristic of President Young, who makes up his mind only after mature deliberation, and then, he is very firm, holding to his opinion or belief with great tenacity.

In the following September his wife died and he started for Kirtland, Ohio, to see Joseph Smith, the Mormon prophet. The meeting of these two men—one the founder of the church, the other destined to become his powerful successor as its leader—took place in the woods near Kirtland, where the prophet had gone to chop wood, and whither Mr. Young followed to make his acquaintance. A few evenings after this first meeting, it is recorded that

Joseph Smith publicly said that the time would come when Brigham Young would rule over the church. From this time Mr. Young became a zealous and successful advocate of Mormonism. Early in 1835 he was ordained one of the Twelve Apostles of the Mormon Church, on the organization of that quorum; and subsequently became president of the twelve, through the defection of Thomas B. Marsh, who was his senior in years, and, for that reason, previously held that office.

As one of the apostles, Mr. Young filled several missions, traveling extensively through the Eastern States, preaching, proselyting, building up and regulating branches of the church, etc. On the 9th of March, 1840, in company with H. C. Kimball, his late first counselor in the presidency of the church, George A. Smith, his present first counselor, and other missionaries, he sailed from New York on a mission to Great Britain, and arrived in Liverpool April 6th. He spent a little over fourteen months in England, during which time

several thousand persons were converted, and the publication of the *Mile-nial Star*, the first foreign Mormon publication, was commenced. It was issued as a serial, and has been continued in that form, and issued regularly from that time until the present.

On his return from England, he filled other missions, traveling and preaching in the East, his family remaining in Nauvoo. He was absent from that city when Joseph Smith and his brother Hiram were murdered in Carthage. He immediately returned to Nauvoo, with other prominent members of the church, and proceeded to take such measures as were deemed best for the protection of the citizens of Nauvoo and the Mormons in the neighborhood, who were hourly threatened with extermination.

Early in '46 it became imperative to vacate Nauvoo, and Mr. Young directed the fleeing thousands of the Mormon church in their westward journey, himself and many others of the organization leaving, for the fifth time, to seek a new home. The bulk of the Mormons made their way to the Missouri river, through the then wild, unsettled country, now forming the State of Iowa, and remained temporarily located during the winter of '46 and '47 at Council Bluffs.

In '47, Mr. Young led a band of pioneers westward, toward the Rocky Mountains, and on the 24th of July of the same year arrived in the valley of the Great Salt Lake, where a settlement was immediately formed.

In the fall of '47, he returned to the Missouri, and in the spring of '48, after having been accepted as President of the Church, he organized a large company of his people, and proceeded with them to the new settlement in Salt Lake Valley.

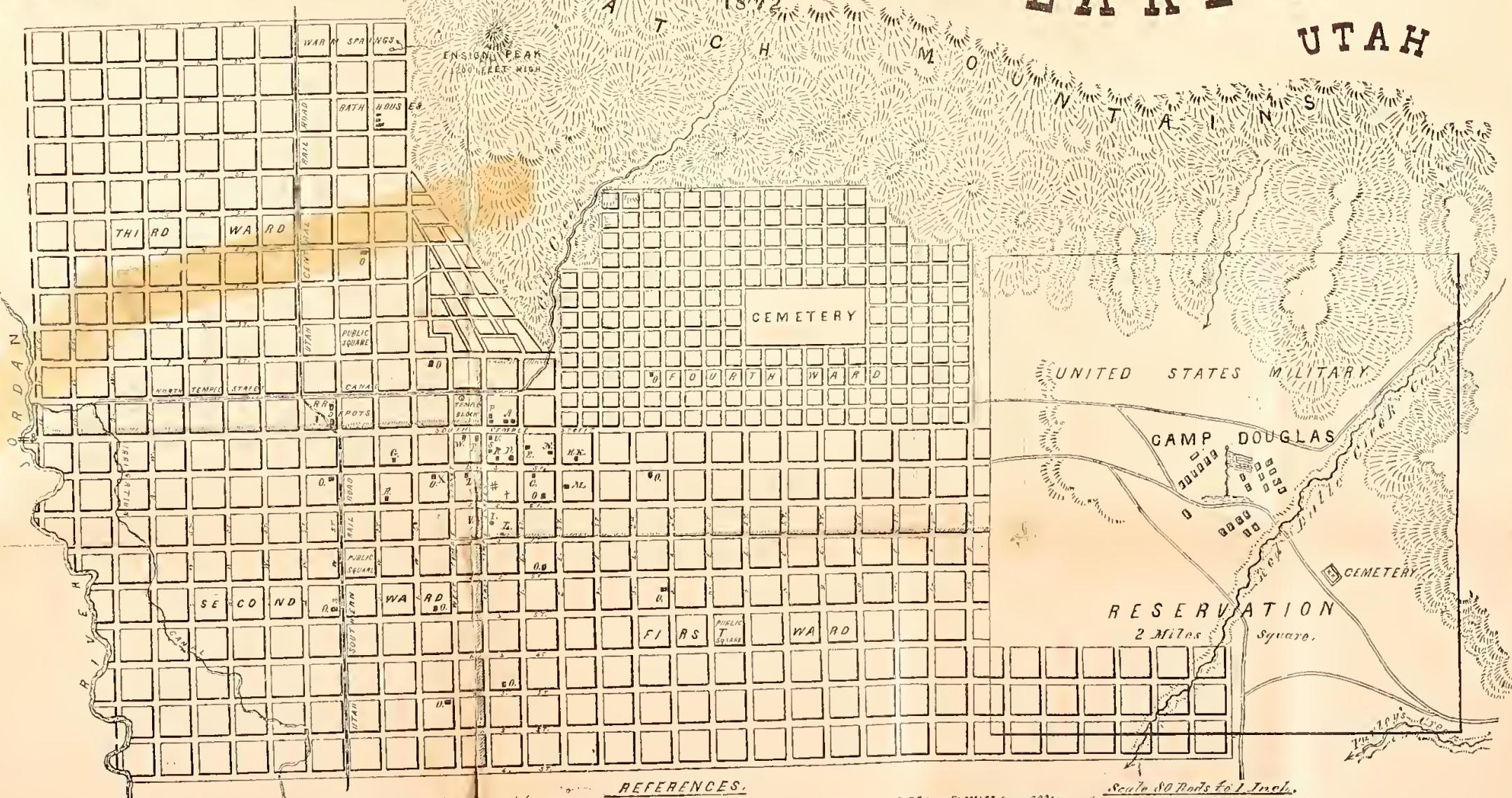
There being no organized government in the territory where they settled—which then belonged to Mexico—the people formed a provisional State, with the title of Deseret, of which Mr. Young was unanimously elected Governor, which position he held for nearly three years, until the Government of the

United States—to whom the country had been ceded by treaty—extended its laws over it, and a Territorial government was provided by act of Congress. This occurred in October, 1850, and Mr. Young was appointed Governor of Utah, as the Territory was then called, and continued to rule it until '57.

President Young has taken a prominent part in all public improvements, in every plan calculated to facilitate communication between the Territory and the Eastern States; materially assisting in forming several express companies and stage lines. He built several hundred miles of the Western Union Telegraph, graded 150 miles of the Union Pacific Railroad, and has ever offered his assistance to every enterprise of the kind which had a material bearing on the interests of Utah. He was also the principal mover in the construction of the Deseret Telegraph line, which connects the northern and southern settlements of Utah, nearly 500 miles apart. He used every effort to push forward to an early completion the Utah Central Railroad, of which he is the president. His great influence over his people was strongly illustrated by the promptness with which they responded to his call to build the grade on the U. P. R. R.; men, teams, &c., coming from all parts of the Territory. Nearly every settlement sent its quota to help in finishing the work.

Such is a brief, reliable sketch of the life of Brigham Young. It is not the purpose of the writer of the GUIDE to speak of his late difficulties, which brought about his arrest and imprisonment. The matter is now in the hands of the Government, which *should* be competent to manage it properly, and deal out even-handed justice without fear or favor. We now take leave of Brigham Young, his people, and his railroad, and return to Ogden, check our baggage, and this time seat ourselves in the beautiful Silver Palace Coaches on the Central Pacific, for at this junction of the three roads we change cars, unless on board a special through train.

CROFUTT'S NEW MAP OF SALT LAKE CITY UTAH



REFERENCES.

A. Priest's Residence & Office	H. St. Mark School.
B. Court House	I. Salt Lake Seminary.
C. City Hall	K. Episcopal Church.
D. Theatre	L. Methodist Church.
E. Social Hall	M. Lethorol Institute.
F. Deseret University.	N. Catholic Church.
G. Commercial Hotel	O. Ward School Houses.
J. Tabernacle.	P. Museum & Menagerie.
& Jordan Bridge.	

P. Miserel News & Printing Office.
R. Salt Lake Daily Herald.
S. Salt Lake Daily Tribune. # Revier House.
T. Salt Lake Daily Courier. # Salt Lake House.
U. Mayor Wells Residence. X Townsend House.
V. Walker's New Hotel
W. Hamblin's Municipal Works.

Scale 80 rods to 1 Inch.

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MEN'S
E.



BROOKLYN.
EWEN & JACKSON Streets

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smooth, rapid, noise-

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FIRST FLOOR—Jewelry, Silver Ware, Plated Ware, Cutlery, &c.
SECOND FLOOR—Bronzes, Clocks, Enamelled and Gilt Articles, Van
Sets, &c.
THIRD FLOOR—Cut and engraved Glass, Fine Porcelain Dinner and 1 top
Sets, Parian Figures and Groups, Majolica, Terra Cotta, &c.

All the floors connected by Elevator and Stair case.



HON. LELAND STANFORD, *President of the Central Pacific Railroad of California.*

Governor LELAND STANFORD was born in the town of Waterville, Albany county, New York, March 9th, 1824. His ancestors were English, who settled in the Valley of the Mohawk about the beginning of the last century. Josiah Stanford, father of Leland, was a farmer, and a prominent citizen of Albany county, whose family consisted of seven sons—Leland being the fourth—and one daughter.

Until the age of twenty, Leland's time was passed at study and on the farm. He then commenced the study of law, and in 1845 entered the law office of Wheaton, Doolittle, and Hudley, in Albany, N. Y. In 1849, moved west, and commenced the practice of law at Port Washington, Wisconsin. Here, in June, 1850, he was married to Miss Jane Lathrop.

In 1852, we find him following many of his friends to the new El Dorado. He landed in California July 12th, 1852, and proceeded directly to the mines, and settled at Michigan Bluffs, on the American River, Placer county, and in a few years he had not only realized a fortune, but so far secured the confidence of the people as to receive the nomination for State Treasurer in 1859, on the Republican ticket. At this time the Democratic party had never been beaten, and the canvass was made on principle. He was defeated; but in 1861—a split up in the ranks of the dominant party having taken place—he was nominated for Governor, and elected by a plurality of 23,000 votes.

How he performed the trust is well known. Suffice it to say, he received the thanks of the Legislature, and won the approval of all classes.

Governor Stanford early moved in the interest of the Pacific Railroad; and on the 22d day of February, 1863, while Sacramento was still staggering under the devastating flood, and all was gloomy in the future, with the whole country rent by civil war, he—all hope—all life and energy—shovelled the first earth, and we know he drove the last spike at Promontory, May 10th, 1869, which completed the Great Pacific Railroad across the continent.

The Central Pacific Railroad.

The history of the great trans-continental railroad is familiar to all Americans, who have watched its progress from the time when the first shovelful of dirt was lifted in its construction until its final completion. Yet each portion, the west as well as the east, has a bit of history attached to it, in which the people of that locality take especial pride. Without tiring our readers with a long array of figures, we propose to give a brief sketch of the Central Pacific R. R., and in this connection we shall claim that the Golden State, by her representative, was really the moving power which brought this mighty project before the nation, secured its aid, and by that means, assured its rapid completion. For some years previous to the time when the final act was passed by Congress—which was to provide those of the western coast with speedy and safe communication with the homes of their youth—the question of the grand trunk road had been discussed by Californians as a public, and as private individuals. Many self-reliant men were sanguine of success, could the project be rightly brought before Congress. This feeling grew among the people of California, until a man who sought office at the hands of the people could not be elected were he not a "railroad man," provided that office was one wherein the holder could injure the prospects of the proposed road. Through the counties where the line was supposed to run, the question was strongly agitated, for those counties were expected to assist the undertaking, by voting their credit in various sums. So eager were the people of the interior of the State to have the enterprise commenced and completed, that they were willing to accede to any terms which would insure the success of the enterprise and relieve them from the oppression of a powerful water monopoly, which controlled the main line of travel to the east.

The members of Congress from Cali-

fornia knew that their election was in part owing to this feeling, and that much was expected of them by their constituents. They failed not when the time arrived, but to one—A. A. Sargent—more than all others, is California indebted for the great work which now binds her to her Eastern sisters.

But we are proceeding too fast, overlooking, but not forgetting, another name, none the less honored because the bearer lived not to behold the final completion of the work he initiated and so earnestly advocated. Theodore D. Judah now sleeps the sleep that knows no awaking, but still his presence can be seen and felt in every mile of the grand road which his genius brought into being. His name is a household word in the West, for thousands knew and appreciated the manly spirit and genial mind of the earnest, persistent and sanguine ENGINEER.

In the then little hamlet of Sacramento dwelt C. P. Huntington, "Charley" Crocker, Mark Hopkins and a few others—warm personal friends of Judah—who, often, in the long, winter evenings, gathered around the stove in Huntington & Hopkin's store room, and there discussed the merits and demerits of the Judah theory. These and some other gentlemen became convinced that the engineer was right—that the scheme was practicable. They subscribed \$50 a piece, and, in the summer, Judah and his assistants made a careful survey of the passes in the Sierras. This was in the summer of 1860, and in the fall the engineer party returned, toil-worn and travel-stained, but vastly encouraged and elated with the result of their summer's work. So favorable was the report that \$1,500 was immediately raised to be used the following summer in the same manner. The summer of '61 found Judah and his party in the gulches and defiles of the Sierras, earnestly prosecuting their labors. The result but confirmed the previous report, with, if possible, more encouraging details regarding country, cost, etc.

Judah then visited many of the principal capitalists of San Francisco to obtain subscriptions for the work, but failed to obtain a dollar. "But this road—what was it? Nothing that concerned them. It did not represent capital. A poor engineer wanted to make some money, and had started the idea for that purpose." These wise men shook their heads, and sneered at the undertaking. "What can they do," said they, "even with their charter from the State? They have no money—they are poor men. It's only a sharp dodge on their part. They think the road will be undertaken in time and then when that time arrives, they will stand a chance to sell their charter, and realize a few thousands—that's all. But they'll die before that time comes. Yes, they'll be dead before a railroad will be built across the continent." Such was the general tone of conversation among moneyed men regarding the road in its infancy, and it cannot be denied that the people of California owe nothing to the capitalists of their State—not even their thanks—for aid in the earliest days of the enterprise. The bone and sinew of the people—the mechanic and the merchant, the farmer, laborer and miner—did all that could be expected of them. But the capitalists held back—and for good reason. They feared that the railroad would give the death blow to the monopolies in which they were more or less interested. Sacramento alone deserves the credit of having originated and brought to a successful completion the Central Pacific Railroad. When the State had chartered the company, when only funds were necessary to insure the completion of the work, only two subscriptions were obtained in San Francisco, and one of these came from a woman.

In '62, Judah went to Washington with charts, maps, &c., of the road. Sargent was there, as enthusiastic in the support of the measure as Judah himself. He drew up the bill under which the road was built. James H. Campbell, of Pennsylvania, and Schuyler Colfax, (than whose there is no more honored

name in California,) were his most efficient supporters in the House. In the Senate, McDougal, of California, Wilson, of Massachusetts, and Morrill, of Maine, also stood manfully by the measure. And there was fought the great battle. There enlightened ideas, assisted by young and vigorous intellects, met and conquered prejudice and moneyed opposition, and opened a new commercial era in the annals of the Union. But it was not accomplished without a long and wearying struggle, in which the bull-dog pertinacity and fierce grip of Sargent was manifested. Day after day, for weary weeks, in the Committee of the Whole, Sargent and Campbell stood up alternately, and answered objections as fast as made, in short, sharp, close and cutting speeches. And night after night, they held interviews with Eastern Senators and Representatives, while at their side, supplying them with information on all desired points, sat Theodore D. Judah, the engineer, earnest and hopeful to the last. Senators did not nor would not believe that the road could or would be built. Said Lovejoy, during one of the debates: "Do I understand the gentleman from California to say that he actually expects this road to be built?" "The gentleman from Illinois may understand me to predict that if this bill is passed, the road will be finished within ten years," responded Sargent. People can now judge between Lovejoy's and Sargent's ideas of the vigor of the West.

The end came, the bill was finally passed, and the news thereof caused the hearts of Californians to leap for joy. Ground was broken at Sacramento, and work commenced immediately. Another battle was to be fought, a financial one. Before they could receive any aid from Government, 40 miles of road must be built and stocked, which would cost at least \$4,000,000, for that 40 miles carried the road far up among the Sierras, through a great portion of their heavy work. Money was "tight"—in fact it always is when a man wants some—commanding two per cent. per month

in California. The corporators put in their entire fortunes. The city of San Francisco issued bonds in assistance of the work; the State and several counties also rendered material aid, but all combined, was but a trifle compared to what was required. C. P. Huntington, now Vice President of the road, went to New York for aid, but among the capitalists there he met the same answer that had been given to Judah by the moneyed men of San Francisco. Finally, he met with Fisk & Hatch, dealers in government stocks. They feared not the result of the scheme. These energetic capitalists, with the promptness of young and active minds—while older capitalists were questioning whether there was really a serious intention of building the road—pledged their faith to furnish the company with what money they required and *when* they required it. The sum ranged from \$5,000,000 to \$20,000,000 per year; but they failed not, the money was always ready. The success of the enterprise was now assured. The bonds of the company were put on the market, and advanced rapidly in price, and soon the company had at their command all needful funds.

When the summit of the Sierras was reached, the road was pushed rapidly forward. But long ere this was gained, when the company was toiling among the mountains, jeers and taunts of derision could be found in plenty in the columns of California newspapers. "The Dutch Flat Swindle," as the road was termed by some of these far sighted journalists—when the company were laboring to overcome the heavy grade near that town—has passed into a by-word in California, and now is suggestive of success. The route, after the "summit" was gained, was then comparatively easy, and rapid progress was made. The Chinese laborers, who had worked on the road from first to last, drove the work forward, and on May 10th, the roads met on Promontory Point, 690 miles from Sacramento. The following will show the number of miles completed during each year: In 1863-4

and 5, 20 miles each year; in '66, 30 miles; in '67, 46 miles; in '68, 363 miles; in '69, 191 miles.

We defer the description of the machine shops and Company's works until we arrive at Sacramento, where they are located.

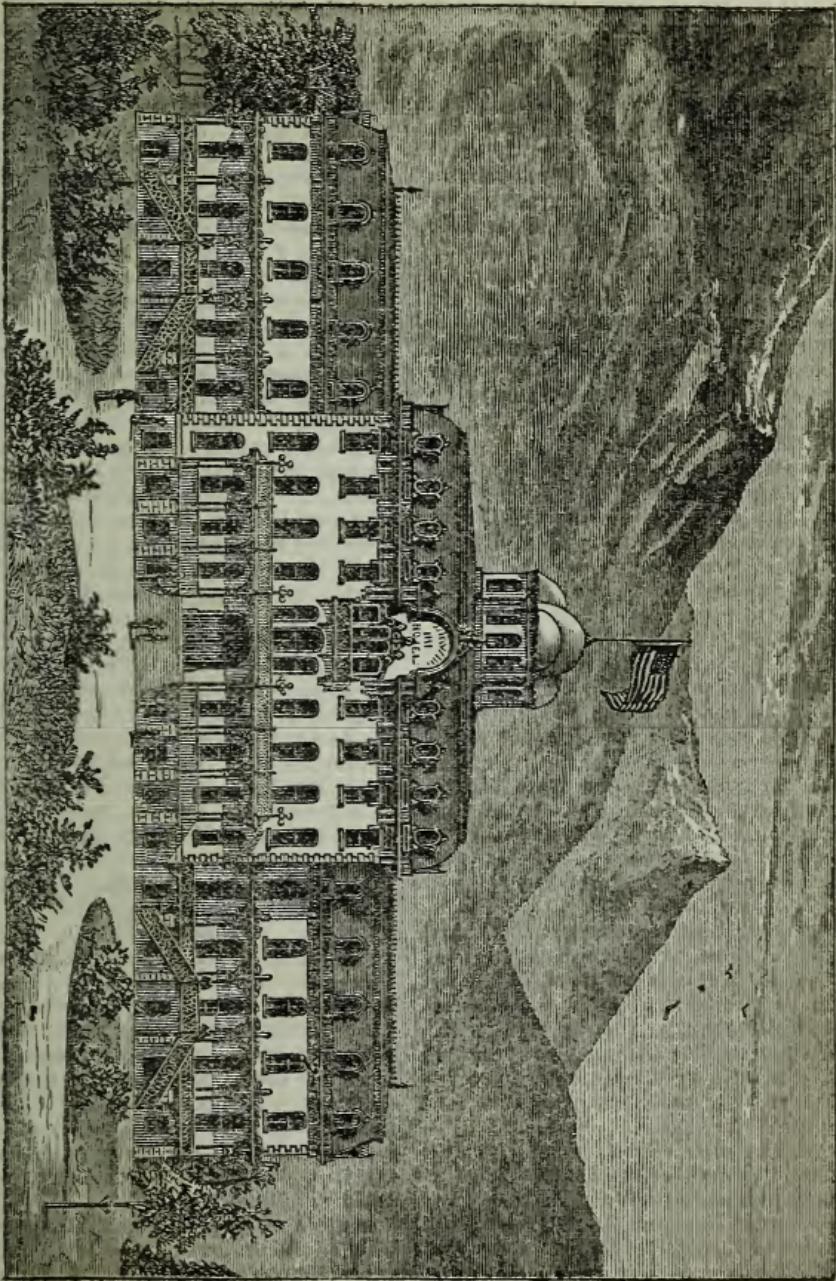
Continuing our journey 6 miles west brings to what will be

UNION JUNCTION.

By act of Congress the point of junction of the Union and Central Pacific Railroad Cos. is located northwest of Ogden station, within the limits of section 36, of township 7, of range 2, situate north and west of the principal meridian and base line in the Territory of Utah, and the said companies are hereby authorized to enter upon, use, and possess sections 25, 26, and 35 of township 7. The companies propose to jointly erect at this "junction" ample permanent buildings to accommodate their own interests—as well as magnificent buildings—to be called the

WAHSATCH HOTEL.

It is designed to construct this hotel with a special view to afford the tourists a resting-place—a *home*—where they can stop over for a time, and be surrounded by all the luxuries, comforts, and conveniences to be found at any hotel on the continent. The building will be supplied with all the modern improvements, with hot and cold water from springs in the foot-hills close by, which are situated at an elevation sufficient to carry the water to the top story of the building. The fountains in the parks surrounding the house will be supplied with water from a similar source. The mineral springs, lake bathing, dry and invigorating atmosphere, delightful scenery, superior hunting and trout fishing of the vicinity, combined with the comforts and luxuries of a first-class hotel, will, we are certain, attract a host of invalids and pleasure-seekers. We present on another page a beautiful view of the hotel as it will appear when completed, which we had engraved expressly for the GUIDE from the original



Walsatch Hotel, Salt Lake Valley, Utah.

drawing by C. R. Linde, Esq., of the U. P. R. R. at Omaha.

This hotel will be constructed of fine sandstone, something after the Mansard style of architecture, 198 feet front, 172 feet in depth. The center of the building will be nearly square, with a wing on each side, and one in the rear. The center part will be 99 feet front, by 82 in depth, and five stories high, including the basement, which is mostly above ground. The wings are four stories high. The first floor contains a large vestibule (in the center of which start the stairs); a corridor 8 feet wide runs from one end of the building to the other, and which will open upon verandas all along the front of the house, and also the parlors. The ladies and gentlemen each have a parlor 24 10 x 17 6; and a sitting-room 24 10 x 18 9½; the dining-room is 37 x 68. The hotel, when completed, will contain about 125 rooms for guests. One great feature of the building will be the observatory on the top, 100 feet above ground, which will afford a fine view of Salt Lake and the Oquirrh range on the south, Promontory Point and Bear river on the west, while to the east and north rise the Wahsatch mountains—in some places snow-capped—extending as far as the eye can see. Elevation, 4,310 feet.

Here at the foot of a spur of the mountains is one of the many

HOT SPRINGS

which abound in the Great Salt Lake and Nevada basins. The springs in cold weather send up a dense cloud of vapor, which is visible for a long distance. They are strongly impregnated with sulphur and other mineral substances. The odor arising from them is very strong, and by no means pleasant for some people to inhale.

From the cars we can obtain an occasional glimpse of Salt Lake, with its numerous islands, lifting their peaks far above the briny waters. The views have been very imperfect; but as we near Promontory Point, and after leaving that place, we shall obtain excellent views. Two miles more to

BONNEVILLE,

an unimportant station. Near the station we pass through fine farming lands, amid luxuriant crops of wheat, barley, and corn. With the rugged mountains on our right, and the waters of the lake seen at times on our left, we find objects of interest continually rising around us. Far up the sides of the mountain, stretching along in one unbroken line, save where it is sundered by canyons, gulches, and ravines, is the old watermark of the ancient lake, showing that at one time this lake was a mighty sea, washing the mountain sides several hundred feet above us. The old water line is no creation of the imagination, but a broad bench, whereupon the well-worn rocks, the rounded pebbles, and marine shells still attest the fact that once the waters of the lake washed this broad upland. Beneath the highest and largest bench, at various places, may be seen two others, at about equal distances apart, showing that the waters of the lake have had three different altitudes before they reached their present level.

The first spike on the Utah Northern R. R.—a narrow-gauge—was driven March 25, 1872, since which time the work has been prosecuted vigorously. It is designed to extend the road north into Idaho and Montana Territories as fast as possible.

Passing on to the right beside the mountain is located

WILLARD CITY,

a Mormon town of 552 inhabitants. The mountains near this town present indications which would assure the "prospector" that they were rich in various minerals. Strong evidences also exist of the great volcanic upheaval which once lit up this country with its lurid fires, most effectually demolishing many philosophical theories, leaving their originators to study nature more and books less.

Near the city, in the first range of hills, is the crater of an extinct volcano, which covers several acres. The masses of lava lying around—its bleak, barren, and desolate appearance—would seem

to indicate that not many years had elapsed since it was in active operation.

But a few miles further on we pass

BRIGHAM CITY,

which, like the preceding one, is nestling close to the base of the mountain on our right. Population, 1,315. Like Willard City, it is a Mormon town, embowered in fruit-trees. The buildings are mostly of adobe. A thriving trade and rapidly increasing population attest the importance of the place. The public buildings include a court-house and tabernacle, two hotels, and no saloons.

Passing Brigham City, we incline further away from the lake road, bearing up on the higher land. Now we cross Bear river on a trestle bridge 1,200 feet long, the piles being driven in water 18 feet deep. A half mile beyond lies the only real Gentile town in Utah Territory,

CORINNE.

This town contains about 1,000 inhabitants, and, at present, is the center of a very extensive trade. It has an elevation of 4,294 feet. Distance from Omaha, 1,056 miles; from San Francisco, 858 miles.

No city on the whole line of road—with but one exception—has improved as much as Corinne within the last year. There have been erected 21 dwellings, 2 hotels, 1 school-house, 3 churches, 1 bank, 2 public halls, 1 jail, 26 stores, and a dozen or more for various other purposes. Among the buildings worthy of notice are a substantial hotel, ticket, freight, and telegraph offices.

The advantages possessed by Corinne cannot fail to render the place one of great importance in time, being, as it is, the distributing point for the Montana trade. Around the town are thousands of acres of fine land, which only require irrigation and culture to render them productive in the highest degree, and water for that purpose can be obtained from Bear river at little expense.

The *Utah Reporter*, a live Gentile

paper, is published semi-weekly, and intensely devoted to home interests.

During 1871, Corinne was declared a "port of entry," if not by the government, it was by the enterprising people of the city. The "City of Corinne," a good-sized steamboat, was launched upon Bear river, and now makes regular trips across Salt Lake to the south side, about 80 miles distant, and finds employment in transporting ores for shipment, as well as passengers, freight, etc., between the Corinne and the Southern mines. The distance from the steamboat landing at Lake Point, the south end of the lake:

	Miles.
To Tooele City	7
" Tooele mines	10
" Grantsville	6
" Stockton	15
" Dry Canyon	23
" East Canyon (mouth)	25
" Ophir City	27
" Silverado	30
" Camp Floyd	50
" Utah Lake and Provo	80
" Tintic mines	80
" Pioche	240

Corinne seem to be moving also in the railroad interest, having recently organized to build a road north towards Montana. At present a daily line of four-horse coaches leaves Corinne, on arrival of passenger trains, carrying the U. S. mail and express to Virginia City and Helena, Montana Ter. To Virginia City, 358 miles; to Helena, 482 miles.

The route to Montana passes up Malad Valley, and thence along the regular coach road to Virginia City and Helena. The country traversed is very diversified, mountain and valley, hill and glen alternating, rendering the route attractive to the lovers of scenery. Malad and other valleys along the road are fertile and well watered, where many Mormon settlements will be found, surrounded by flourishing farms.

MONTANA TERRITORY.

This Territory lies to the north of Utah, and generally considered solely as a mining country. Although at one time Montana possessed excellent placer gold mines and "gulch diggings," they have mostly been worked out, yet there

are some camps where *good pay* is being taken out. The mining is now mostly confined to quartz. Montana for the last year ranked *second*, California being *first*, in the yield of her gold mines, of all the States or Territories in the Union.

Although many and rich mines of gold have been discovered within her borders, the importance of her agricultural resources are not to be ignored. The valleys of the Missouri, Madison, Gallatin, Yellowstone, and many other rivers, possess the very best of farming and grazing lands, in quantities sufficient to support a large population. In the mines enterprise and capital have, and will continue to develop great wealth, but here, as in other mining countries, expensive machinery must be erected, and a large capital invested, before the mines can be developed and worked with profit, while to the agriculturist and stock grower Montana presents—with a continually increasing home market—inducements to the poor emigrant second to no section of the United States. The people of the Territory are energetic and persevering, with full faith in the future of their Territory, and will, in time, render it what they contend it really is, one of the wealthiest sections of the Union.

HELENA.

This town contains, according to the Census of 1870, 8,106 inhabitants. The energy and enterprise of the Montana people cannot be better illustrated than by referring to the great fire which swept over this city in 1869, completely destroying the business portion of the town. Within 60 days the town was rebuilt with substantial buildings of brick and stone, showing that the Helenites had full faith in their city and the country's resources and recuperative powers. Two daily and weekly papers are published here: the *Herald* and the *Gazette*. Helena is the largest city in the Territory. Quartz-mining is the chief occupation of the people.

VIRGINIA CITY

contains a population of 867. The *Mountanian*, a weekly paper, is published here.

DEER LODGE CITY.

This place is third in point of population in the territory. It contains 788 in population; with two weekly papers, the *New North West* and the *Independent*.

It would seem, from recent discoveries, that Montana and a portion of Wyoming Territories contain the

LATEST WONDER IN THE WORLD.

The recent explorations of Dr. Hayden, United States Geologist, have demonstrated that *this our own country* contains natural wonders which, in extent, grandeur, and wondrous beauty, far surpass those of any other portion of the known world. A bill has been passed by Congress setting apart a tract of country 55 by 65 miles in extent as a

GREAT NATIONAL PARK, or mammoth pleasure-ground, for the benefit and enjoyment of the people. The entire area within the limits of the reservation is over 6,000 feet in altitude. Almost in the centre of this tract is located the Yellow Stone Lake, a body of water 15 by 22 miles in extent, with an elevation of 7,427 feet. The ranges of mountains that hem the numerous valleys on every side rise to the height of from 10,000 to 12,000 feet, and are covered with perpetual snow all the year.

This country presents the most wonderful volcanic appearance of any portion of this continent. The great number of hot springs and the geysers represent the last stages—the vent or escape pipes—of these remarkable volcanic manifestations of the infernal forces. All these springs are adorned with decorations more beautiful than human art ever conceived, and which have required thousands of years for the cunning hand of nature to form. The most remarkable of these geysers throws a column of boiling hot water, 15 feet

in diameter, to a measured altitude of 150 feet. This display is continued for hours together, and so immense is the quantity of water discharged that during the eruption the volume of water in the river is doubled. Another throws a column of hot water 200 feet in height, and over a foot in diameter. It is said the geysers of Iceland which have been the object of interest for scientists and travellers of the entire world for years, sink into insignificance in comparison with the Hot Springs of the Yellow stone and Fire-hole Basins.

The route to this park is via Pacific R. R. to Corinne, and thence by stage.

The mountain rim of the Yellowstone Lake rises from 1,500 to 4,000 feet above its surface, and, except in two directions, is unbroken. To the west and southwest are breaks in the chain, through one of which appear the outlines of a conspicuous conical peak, 10,500 feet in height. In the mountain system which surrounds the lake are born the tributaries (almost the principal sources) of three of the largest rivers on the continent. Four of the most important tributaries of the Missouri—namely, the Big Horn, the Yellowstone, the Madison, and the Gallatin—have their springs here. Flowing first north, then east, they strike the Missouri, which in its turn flows southeasterly to the Mississippi Valley, where its waters are blended with the stately stream that empties its tides at least 3,500 miles below into the Gulf of Mexico. The Snake river, whose sources are actually interlaced with those of the Madison and the Yellowstone, turns westward, and traverses nearly a thousand miles of territory before it joins the Columbia, on its way to the Pacific Ocean. Again, the Green river, rising but a few miles from the sources of the others, seeks the Colorado of the West, which, after innumerable windings through deserts, and a roaring passage of hundreds of miles in the abysses of canyons surpassing even those of the Yellowstone in grandeur, depth, and gloom, reaches the Gulf of California. Penetrating to the

lofty recesses where these springs arise, the explorer stands, as it were, astride of the grandest water-shed in the world. A pebble dropped into one spring touches a water-nerve of the Pacific; a pebble cast into another touches a similar nerve of the Atlantic Ocean. It is a thought to cause the wings of the spirit of a man in such a place to expand like an eagle's.

We have taken some pains to procure, and have engraved expressly for the GUIDE, a complete map, showing the exact boundaries of this park, and the location of many of the most noticeable objects of interest, to which we take pleasure in referring our readers, while we return to our duty, from which we digressed—on the line of the Pacific Railroad at Corinne.

Again *Westward!* we draw near the base of the mountains, which slope nearer toward the waters of the lake. The farming lands gradually give way to alkali beds, white, barren, and glittering in the sun. Now the road curves along the bank of the lake, crossing the low flats on a bed raised several feet above the salt deposits. The channel along the road, caused by the excavation for these fills, is filled with a reddish, cold-looking water. Taste it at the first opportunity, and you will wish that the first opportunity had come last, or that it never had arrived. We cross three small pile or trestle bridges, the longest being 200 feet in length, and soon strike the higher broken land, where we find

BLUE CREEK STATION.

Elevation, 4,360 feet.

Leaving the station, we cross Blue creek on a trestle bridge, 300 feet long and 30 feet high. Thence by tortuous curves we wind around the heads of several little valleys, crossing them well against the hillside, by heavy fills. After passing some deep cutting and heavy work, we pass a trestle bridge at our left, 500 feet long, and 87 feet high. This bridge was built by the Union Pacific Railroad Co., who continued their track to

Promontory, but was abandoned by order of Congress and the junction of the two roads transferred to Ogden. The old track of the Union Pacific runs within a short distance of the Central Pacific all the way to Promontory, the former junction of the two roads. At and around this point the work is very heavy. This was one of the hardest "camps" along the whole line of the Pacific R. R. It is said that 28 deaths by violence occurred in one month, eight men being shot one morning. A stranger entered a restaurant one morning and sat down to a table occupied by two men. One of the parties helped himself to more gravy than his neighbor thought right. Drawing his six-shooter, he deliberately shot him dead at his feet. Horrified, the stranger sprang from his seat, but found himself covered by the six-shooter. "Sit down and finish your breakfast," said the murderer, and the stranger was compelled to do so, with the corpse of the murdered man lying beside him.

Through more deep rock cuts and over heavy fills, we wind around Promontory Mountain until the lake is lost to view. Up, up we go, the engine puffing and snorting with its arduous labors, until the summit is gained, and we arrive at the former terminus of the two Pacific railroads.

PROMONTORY.

Elevation, 4,905 feet. Distance from Omaha, 1,084 miles; from Sacramento, 690. Celebrated for being the point where the connection between the two roads was made on the 10th of May, 1869.

The town was formerly composed of about 30 board and canvas buildings including several saloons and restaurants, but is now almost entirely deserted. The supply of water is obtained from a spring about four miles south of the road, in one of the gulches of the Promontory Mountain. The railroad company obtain their supply from Indian creek and other water stations along the line, by means of water cars, a train of which is run daily.

The bench on which the station stands would doubtless produce vegetables or grain, if it could be irrigated, for the sandy soil is largely mixed with loam, and the bunch grass and sage-brush grow luxuriantly.

THE LAST SPIKE.

On Monday, the 10th of May, 1869, a large party was congregated on Promontory Point, Utah Territory, gathered from the four quarters of the Union, and, we might say, from the four quarters of the earth. There were men from the pine-clad hills of Maine, the rock-bound coast of Massachusetts, the everglades of Florida, the golden shores of the Pacific slope, from China, Europe, and the wilds of the American continent. There were the lines of blue-clad boys, with their burnished muskets and glistening bayonets, and over all, in the bright May sun, floated the glorious old stars and stripes, an emblem of unity, power and prosperity. They are grave earnest men, most of them, who are gathered here; men who would not leave their homes and business, and traverse half or two-thirds of the continent, only on the most urgent necessity, or on an occasion of great national importance, such as they might never hope to behold again. It was to witness such an event, to be present at the consummation of one of the grandest of modern enterprises, that they had gathered here. They were here to do honor to the occasion when 1,774 miles of railroad should be united, binding in one unbroken chain the East and the West.

To witness this grand event, to be partakers in the glorious act, this assemblage had convened. All around was excitement and bustle that morning; men hurrying to and fro, grasping their neighbor's hands in hearty greeting, as they paused to ask or answer hurried questions. This is the day of final triumph of the friends of the road, over their croaking opponents, for long ere the sun shall kiss the western summits of the gray old monarchs of the desert, the work will be accomplished, the as-

semblage dispersed, and quiet reign once more, broken only by the hoarse scream of the locomotive; and when the lengthening mountain shadows shall sweep across the plain, flecked and mottled with the departing sunbeams, they will fall on the iron rails which will stretch away in one unbroken line from the Sacramento to the Missouri rivers.

The hours passed slowly on until the sun rode high in the zenith, his glittering rays falling directly down upon the vacant place, between the two roads, which was waiting to receive the last tie and rails which should unite them forever. On either road stood long lines of cars, the impatient locomotives occasionally snorting out their cheering notes, as though they understood what was going on, and rejoiced in common with the excited assemblage.

To give effect to the proceedings, arrangements had been made by which the large cities of the Union should be notified of the exact minute and second when the road should be finished. Telegraphic communications were organized with the principal cities of the east and west, and at the designated hour the lines were put in connection, and all other business suspended. In San Francisco the wires were connected with the fire-alarm in the tower, where the ponderous bell could spread the news over the city, the instant the event occurred. Baltimore, Philadelphia, Boston, New York, Cincinnati, and Chicago were waiting for the moment to arrive when the chained lightning should be loosed, carrying the news of a great civil victory over the length and breadth of the land.

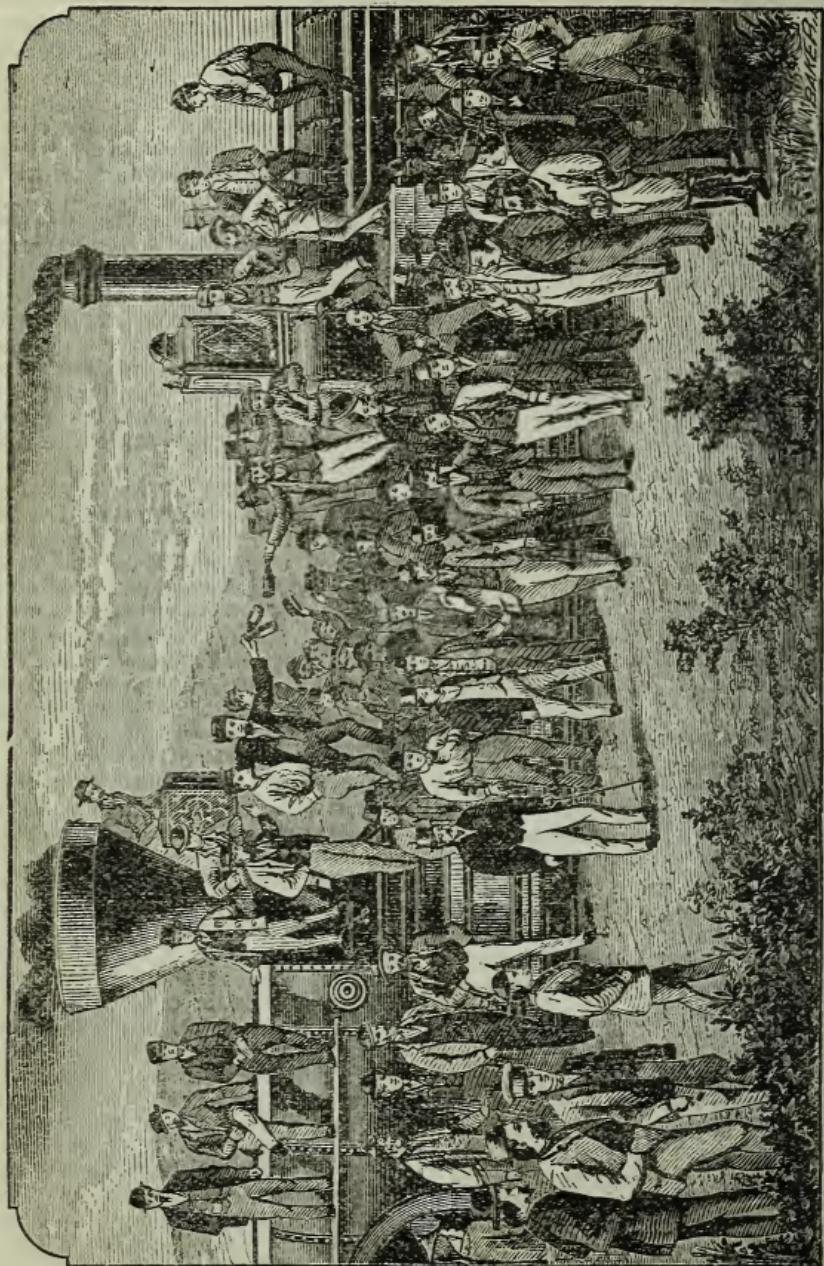
The hour and minute designated arrived, and Leland Stanford, President, assisted by other officers of the Central Pacific, came forward; T. C. Durant, Vice-President of the Union Pacific, assisted by General Dodge and others of the same company, met them at the end of the rail, where they reverently paused, while a reverend gentleman invoked the Divine blessing. Then the last tie, a beautiful piece of workman-

ship, of California laurel, with silver plates on which were suitable inscriptions, was put in place, and the last connecting rails were laid by parties from each company. The last spikes were then presented, one of gold, from California, one of silver from Nevada, and one of gold, silver and iron from Arizona. President Stanford then took the hammer, made of solid silver, and to the handle of which were attached the telegraph wires, and with the first tap on the head of the gold spike at 12, M., the news of the event was flashed over the continent. Speeches were made as each spike was driven, and when all was completed, cheer after cheer rent the air from the enthusiastic assemblage.

Then the Jupiter, a locomotive of the C. P. R. R. Co., and locomotive No. 116, of the U. P. R. R. Co., approached from each way, meeting on the dividing line, where they rubbed their brown noses together, while shaking hands, as illustrated above. To say that wine flowed freely, would convey but a faint idea of the good feeling manifested, and the provision made by each company for the entertainment of their guests and the celebration of the event.

Immediately on the completion of the work, a charge was made on the last tie, (not the silver plated, gold-spiked laurel, for that had been removed and a pine tie substituted) by relic hunters, and soon it was cut and backed to pieces and the fragments carried away as trophies or mementoes of the great event. Even one of the rails last laid in place was cut and battered so badly that it was removed and another substituted. Weeks after the event we passed the place again, and found an enthusiastic person cutting a piece out of the *last tie* laid. He was proud of his treasure—that little chip of pine, for it was a piece of the last tie. We did not tell him that three or four ties had been placed there since the first was cut in pieces.

In the cars belonging to each line, a sumptuous repast was served up to the invited guests. Then as the sun sank



THE EAST AND THE WEST.

THE ORIENT AND THE OCCIDENT SHAKING HANDS AFTER DRIVING THE LAST SPIKE.

low toward the western summit of Promontory Point, the long trains moved away with parting salutes from the locomotives, and the celebration was ended, the participants speeding away to their far distant homes, and so closed the eventful day on Promontory Point.

GREAT SALT LAKE.

Behind the station at Promontory the hills rise into the dignity of mountains. To the top of the left hand point we strolled one day. It was Sunday, and the way the sun poured its rays down on the side of that old gray mountain, reminded us that there was at least, a visible foundation for the theory of warmer climes for those who indulged in Sunday climbs, in opposition to Sunday laws. After an hour's toilsome walking through sage-brush and bunch grass; then among sage-brush and rocks until we had attained a height to which that persistent shrub could not attain; then among more rocks, stunted cedars, tiny, delicate flowers and blooming mosses, until we stood on the summit of the peak, on a narrow ridge of granite, not over four feet wide, and there, almost at our feet—so steep was the mountain—lay the Great Salt Lake, spread out like a vast mirror before us, its placid bosom glittering in the morning sun, like a field of burnished silver. Mile after mile it stretched away, placid and motionless, as though no life had ever caused a vibration of its currents, or given one restless impulse to its briny bosom.

By the aid of the glass, Church or Antelope and other mountain islands could be distinctly seen, rearing their towering crests far above the silver border at their base, their sloping sides enrobed in the greenest of all green covering. Standing there, as lone sentinels in the midst of this waste of waters, they possess a wondrous beauty, as a recompence for their utter isolation. But now—on this bright spring morn, when earth puts on her loveliest garments—is the time to view them; and to carry away with you a pleasing remembrance.

You do not want to view them in the fall or winter, when the green hue has given place to the dusky brown, or parched and glinting gray. Then their rock-crowned summits are wreathed in snow, which falls in fleecy folds and life-chilling shrouds far down their cold gray sides.

Away beyond these islands rise the white-crested Wahsatch mountains, and we think that we can pick out the curve in their brown sides where nestles Salt Lake City, secure and beautiful in her mountain fastness. Far away to the southward the range blends with the sky and water, and the dim, indistinct lines of green, brown and silver blend in one, while above them the clear blue of the mighty dome seems to float and quiver for a space, and then sweeps down to join them, blending with them in one waving mass of vanishing color, which slowly recedes in the dim distance until the eye can follow its course no farther. Turn now to the left, and there, sweeping far up behind Promontory Point is the northwestern arm of the lake, Monument bay. That long, green line is Monument Point, throwing its long ridge far out into the bosom of the lake, as though it would span the waters with a carpet of green. Away to the west, Pilot Knob rears its crest of rocks from out the center of the great American Desert. Do not look longer in that direction—all is desolation; only a barren plain, and hard, gray rocks, and glinting beds of alkali meet the vision.

One more view to the north, one look at the lines of green hills and greener slopes which sweep down toward the sandy, sage-clad plateau on which stands the station; another and last look at the placid lake, and now, cooled and refreshed by the mountain breeze, we pluck a tiny moss bell from the cleft in the highest rock, and then descend the rugged mountain. We have seen Salt Lake from the most commanding point of view, and now we are better able to understand its shape and comprehend its dimensions, which are 126 miles in length by 45 in width. The principal

islands are Antelope (15 miles long), Sheep's, Hot, Stansbury, Carrington and Egg. They possess many charming summer retreats, many natural bathing places, where the gravelly bays intrude among the grass-covered points and hillocks. The water is so buoyant that it is difficult for the bather to sink therein.

The lake has no outlet for the waters continually pouring into it from Bear, Jordon, Weber and other rivers. Evaporation absorbs the vast volume, but it is a noticeable fact, and one worthy of consideration, that since the settlements have been made in the Territory, and the bosom of the earth has been turned with the plow, rendering the barren wastes blooming and productive, that the waters of the lake have risen steadily, and now are 12 feet higher than they were 20 years ago. Fences, which once enclosed fine meadow land, are now just peering above the flood—marking its steady encroachment on the fertile bottom lands. The grand old mountains bear unmistakable evidence of the water's presence far up their rocky sides. At what time the floods reached that altitude, or whether those mountains were lifted from the present level of the lake by volcanic action, and carried these water lines with them, are questions no one can answer. Savans may give learned theories regarding things they know nothing of; they may demonstrate that Salt Lake is held in its present position by immutable laws, but they cannot destroy the ocular evidence that it is rising, slowly and steadily, and has been so doing during the last 20 years.

COL. HUDNUT'S SURVEY.

On the west side of Promontory Point, the line, known as Colonel Hudnut's survey of the Idaho and Oregon branch of the U. P. R. R., crosses the Central road, and passes north to Pilot Springs; thence down Clear creek or Raft river, to Snake river and along the southern bank of this stream to Old's Ferry, thence across the country to Umatilla, on the Columbia river. For

the entire distance between Promontory and Raft river the country is uninviting, though not barren. From thence the route passes through a country abounding in fertile valleys and bold mountains—the latter well-wooded. There is plenty of wood and other materials for building the proposed road along the whole length of the line. To the mouth of Raft river from Promontory is about 100 miles. The scenery along the line is varied, from smiling, fertile valleys to lofty, snow-clad mountains. We will speak only of the general characteristics of the route and of one or two points of remarkable interest. The main feature of the Snake or Shoshone river is its majestic cataracts. We will give a short description of the river in which they are found. The stream, sometimes called Lewis river, is the south fork of the Columbia, and was discovered by Lewis, one of the earliest pioneers who ventured westward of the Rocky Mountains, in 1808. It rises in the Rocky Mountains, near Fremont's Peak, in the Wind River Range, which divides Idaho and Dakotah Territories. The head waters of the stream are Gros Ventre, John Craig's and Salt creeks, on the south, with the outlets of Lyon's and Barret's lakes, on the north. The general course of the river from its source to Big Bend, is northwest. At this point, Henry's Fork, a large stream flowing from the north, empties its waters into the main river. Thence the course is southwesterly until the first falls are reached, about 400 miles from the river's source. These are called the AMERICAN FALLS, and are very fine, but do not present so sublime an appearance as will be seen about 100 miles further down the river, where will be found the

GREAT SHOSHONE FALLS,

Of which we give a short description. The river here leaves the elevated plains of Idaho by a series of cascades, from 30 to 60 feet high, closing the scene in one grand leap of 210 feet per-

pendicular. The width of the river at the point of taking the last leap is about 700 feet. The form of the falls is circular, somewhat like those of the Niagara. Before the river reaches the cascades it runs between lofty walls, which close in around it, until but a narrow gorge is left for the passage of the water 1,000 feet below the tops of the bluffs. The most complete view of the falls is obtained from Lookout Point, a narrow spit of rocks which projects from the main bluffs a short distance down the stream from the falls. From this point Eagle Rock rises before us, in the midst of the rapids, and almost overhanging the falls, fully 200 feet high; its pillar-like top surmounted by an eagle's nest, where, year after year, the monarch of the air has reared its young. Near the center of the river are several islands, covered with cedar, the largest one being called Ballard's Island. Two rocky points, one on either side of the falls, are called the Two Sentinels. Excepting in point of volume of water, the falls will compare favorably with Niagara.

From this point the river runs nearly west until it reaches War Eagle Mountains, about 800 miles from its source, when it turns due north, following that course for 150 miles, then bending again to the west it unites with Clark's river forming the Columbia. After leaving the last falls the country is less broken, and the work of building the road would be comparatively light for most of the way. Should the U. P. R. R. Co. build this branch, as proposed, the trade of Oregon and Idaho would be thrown open to the East by a much shorter route than it now possesses.

We now resume our westward way, taking up our line of travel at Promontory. Four miles west of the station (near a gravel track on the north side) can be seen close to the road, on the South Side, a sign-board, which reads,

"TEN MILES OF TRACK IN ONE DAY."

Again, on the same side, ten miles further west, another with the same in-

scription will appear. These boards mark the track which was laid by the track layers of the Central Pacific Company in *one day*, under the immediate charge of J. H. Stowbridge, Supt. of Construction, H. H. Minkler, track layer, and James Campbell, Esq., Supt. of Division, who is now Supt. of the Salt Lake Division of the "C. P." at Ogden. This undoubtedly is the most extraordinary feat of the kind ever accomplished in this or any other country.

WHY IT WAS DONE.

During the building of the road a great rivalry existed between the two companies as to which could lay the most track in one day. This rivalry commenced early in the year 1868. The "Union" laying six miles, soon after the "Central" laid seven miles, and then again the "Union" seven and a half miles. This the "Central" men did not like, and they announced that they could lay ten miles in one day. This coming to the ears of the "Union" men, Mr. Durant, Vice-President, offered to bet \$10,000 that it could not be done, and the "Central," hearing it, resolved it *should* be done. On the 29th day of April, 1869, when only fourteen miles of track remained to be laid to meet the Union at Promontory Point, and in the presence of Governor Stanford, Charles Crocker, Esq., and many prominent men from the East and California, and a committee from the "Union" to note the progress, the work commenced.

HOW IT WAS DONE.

When the car loaded with rails came to the end of the track, the two outer rails on either side were seized with iron nippers, hauled forward off the car, and laid on the ties by four men who attended exclusively to this. Over these rails the car was pushed forward, and the process repeated. Behind these men came a gang of men who half drove the spikes and screwed on the fish-plates. At a short interval behind these, came a gang of Chinamen who drove home the spikes already inserted, and added the

rest. Behind these came a second squad of Chinamen, two deep on each side of the track. The inner men had shovels, the outer ones picks. Together, they ballasted the track. The average rate of speed at which all these processes were carried on was one minute and $1\frac{1}{2}$ seconds to every 240 feet of track laid down!

MATERIAL REQUIRED.

Those unacquainted with the enormous amount of material required to build ten miles of railroad can learn something from the following figures. It requires 2,585,000 cross ties, 3,520 iron rails, 55,000 spikes, 7,040 fish-plates, and 14,080 bolts, the whole weighing 4,362,000 lbs. This material is required for a single track, exclusive of "turn-outs."

To bring this material forward and place it in position, over 4,000 men, hundreds of cars and wagons, were employed. The discipline acquired during the four years since the commencement of the road, enabled the force to begin at the usual time in the morning, calm and unexcited, and march steadily on to "VICTORY," as the place where they rested at 1.30 P.M. was called (now called Rozel), having laid *eight miles of track in six hours*. Here this great "Central" army must be fed, but Campbell was equal to the requirements. The camp and water train was brought up at the proper moment, and the whole force took dinner, including many distinguished guests. After the "hour nooning," the army was again on the march, and at precisely 7 P.M. 10 miles and 200 feet had been completed.

When this was completed, the "Union" Committee expressed their satisfaction and returned to their camp, and Campbell sprang upon an engine and ran it over the ten miles of track in *forty minutes*. Thus demonstrating that the work was well done.

Eight miles from Promontory we pass

ROZEL.

Elevation, 4,588 feet. Unimportant

station, fine view of lake on the south. Eight miles more we pass

LAKE.

This is another unimportant station. Elevation, 4,223. Five miles to

MONUMENT.

Also an unimportant station. Elevation, 4,222 feet. Here, many times, the lake breeze sweeps by bearing the heavy alkaline and saline odors peculiar to this locality and peculiarly offensive to invalids. Monument Point stretches far out into the lake—a slim, tapering promontory, covered with excellent grass. We shall not see much more of the article for some time to come, for we are fast nearing the Great American Desert; in fact, we are inclined to think we have been in it for some time. Descending a heavy grade we sweep around the head of the western arm of the lake, nearing and leaving its waters for the last time.

KELTON,

or Indian Creek station, 17 miles further west. Elevation, 4,222 feet. This is a station of more importance than any yet passed since leaving Promontory. There are large water tanks by the roadside, supplied from a spring in the foothills some miles to the northward. The Red Dome Mountains show their scattered spurs to the north, and to the southeast Pilot Knob or Peak can be seen, lifting its rocky front far above the desert.

From this station a daily line of coaches leave on arrival of the cars for Idaho and Oregon, and bear that title, the Idaho and Oregon Stage line. The route passes through Idaho and the eastern part of Oregon, connecting with the steamers of the Oregon Steam Navigation Company at Umatilla, on the Columbia river. Through to Boise in two days; Walla Walla, in four days; Portland, five and a half days.

About 25 miles to the northward, in the gulches which pierce the mountains in every direction, large quantities of telegraph poles are obtained, and wood in abundance, with some good saw tim-

ber. About ten miles further in the same direction, some silver and copper mines have lately been discovered, which are reported very rich. Before leaving this point, we will take a glance at the

BOISE COUNTRY.

To which the line of stages spoken of convey the adventurous passengers. It lies in the southwestern portion of Idaho Territory, bordering on Oregon. Extensive mines of gold have been worked there for several years, and still continue to attract much attention, as rich mines of gold-bearing quartz have been discovered and worked since the placer mines have been partially exhausted. The principal mining country is in that portion generally designated as the Boise Basin, which comprises a scope of country about 150 miles north and south by a length of about 200 miles. The Boise mines lie north of the Snake or Shoshone river. The principal streams in the mining section are Boise river, Fayette river, Wind creek, Moor's creek, and Salmon river. On the last named stream the miners have experienced considerable annoyance from the Indians, who have been exceedingly hostile.

The principal towns in this section are Boise City, Idaho City, Esmeralda, Centerville, and Silver City.

BOISE CITY

Is the capital of the Territory, county seat of Ada county. Population, about 6,000. The town site was surveyed July 7, 1863, and now contains about 450 buildings, a considerable portion of which are of brick and stone. Principal newspaper, the *Statesman*, tri-weekly and weekly. The town is situated in a fine agricultural valley, about two miles wide by fifty long. It is the center of several stage routes, and also of trade for a large section of country. It is about 300 miles northwest of Salt Lake City, 450 miles northeast of San Francisco, 420 miles southeast of Portland.

IDAHO CITY

Is the second city in size in the Territory, and lies 36 miles northeast of Boise City, with which it is connected with stage, and also with Umatilla, Oregon. The *World* newspaper is published here, semi-weekly

SILVER CITY.

A straggling city, covering about 80 acres, and containing about 2,000 inhabitants. The buildings are granite, with the exception of a few, which are built of wood. The *Democrat*, a weekly newspaper, is published here.

We will now glance at the

OWYHEE MINES,

Which lie south of the Snake river and War Eagle Mountains. This portion of the mining belt of Idaho is not as extensive as the one just mentioned, and differs from it in its ores, silver mines predominating. The principal water courses of this section are Owyhee river, the north and south forks of the same, and the Jordan river. The principal towns are Ruby City, Silver City, and Bonville. These towns are connected with Boise City by stage

We now return to the railroad. Leaving Kelton, we find nothing to note until we arrive at

MATLIN,

An unimportant station, 16 miles west of Kelton, on the high lands, which sweep out from the Red Dome Mountains. Elevation, 4,630 feet. There the Red Dome Mountains, low sandstone ridges, sweep nearer down toward the track, breaking the general monotony of the scene. The road lies on the northern border of a vast waste, whereon we see few signs of verdure. The station is about midway from east to west of the

GREAT AMERICAN DESERT,

Which extends over an area of about 60 miles square. Over this vast extent the eye wanders in vain for some green ob-

ject, some evidence that, in times gone by, this waste supported animal life or will, eventually, in years to come. All is desolate in the extreme; the bare beds of alkali or wastes of gray sand alone meet the vision, if we except now and then, a rocky hill more barren than the plains, if such a thing were possible. Evidently this desert was once the bed of a saline lake, perhaps a portion of the Great Salt Lake itself. The sloping plain sweeps off towards that body of water, and, in places, bends down until its thirsty sands are laved by the briny flood. There are many evidences in support of the theory, that it was once covered by those waters, although much higher than the present level of the lake. The saline matter is plainly discernible in many places, and along the red sand-stone buttes, which mark its northern border, the long line of water wash, so distinctly seen at Ogden and other points along the lake shore, can be distinctly traced, and apparently on the same level as the bench at those places. The difference in the altitude of the road is plainly indicated by this line, for as we journey westward, and the elevation of the plateau increases, we find that the water-wash line blends with the rising ground and is seen no more.

For sixteen miles further we find no marked change to note until

TERRACE STATION

Is reached. Elevation, 4,619 feet. The company have here erected work shops and a sixteen stall round-house. To the northward, the hills which mark the entrance to the Thousand Spring Valley, are plainly seen, brown, bare and uninviting. We pass on through the same barren looking country until we reach

BOVINE,

Eleven miles to the westward. Elevation, 4,346 feet. But little of interest to note, the face of the country remaining about the same, though gradually improving. Spots of bunch grass appear at intervals, and the sage-brush seems to have taken a new lease of life, indicating

a more congenial soil. We pass the sink of Goose creek, and arrive at

LUCIN,

Thirteen miles west of the last station. Elevation, 4,494 feet. At this point we find water tanks, supplied by springs in the hills at the outlet of

THOUSAND SPRING VALLEY,

Which lies to the north, just behind that first bare ridge, one of the spurs of the Humboldt Range, but a few miles distant. The valley is about four miles wide, and not far from 60 miles long, taking in its windings from this point to where it breaks over the divide into Humboldt Valley. It is little better than one continual bog in the center—the water from the numerous brackish springs found there standing in pools over the surface. There is good range or pasturage for cattle in the valley and hills beyond. The old emigrant road branches off at or near the station, one road passing through the valley, the other following nearly the line of the railroad, until it reaches the Humboldt *via* Humboldt Wells. The outlet of the valley,

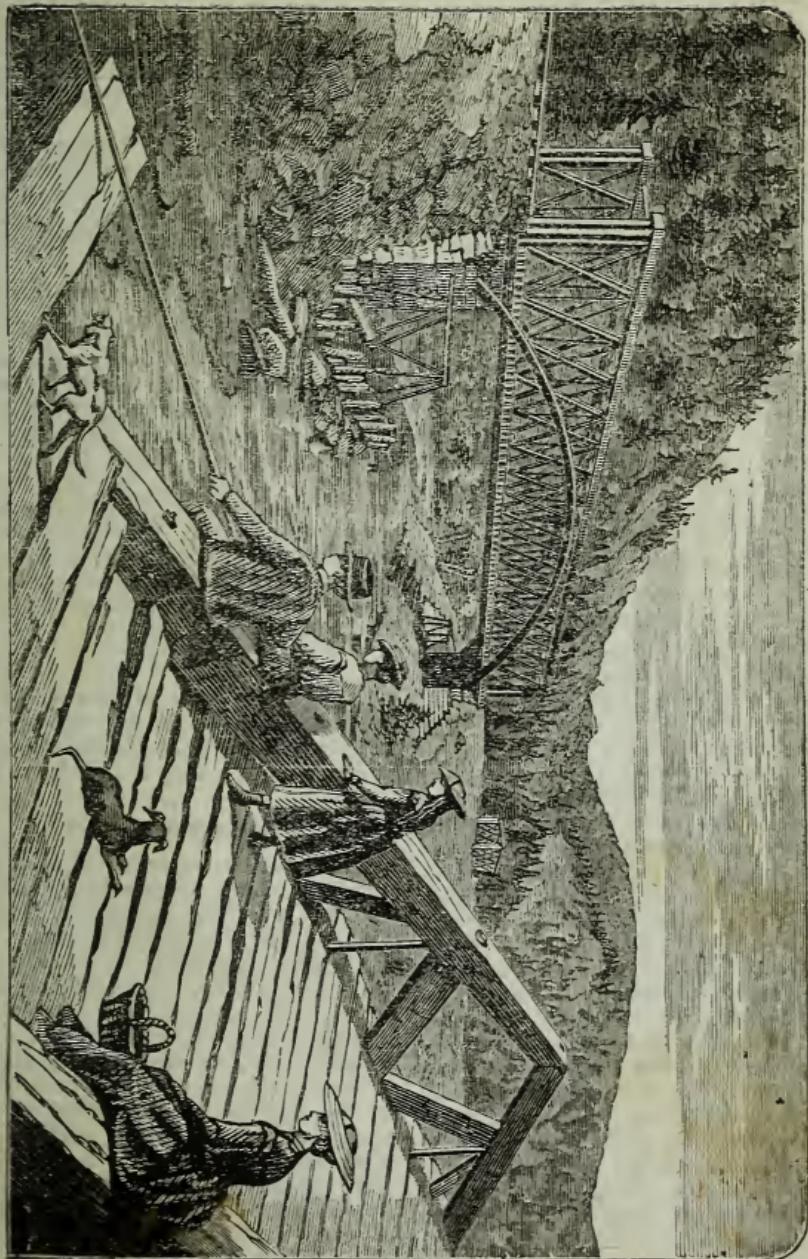
GOOSE CREEK,

Or, as it is sometimes called, Hot Spring creek—a small stream which courses the valley through its entire length—sinks near by the station, rising and sinking at intervals, until it is lost in the desert.

SURPRISE CREEK,

Which rises about 20 miles north, running between the ends of the Goose Creek and Humboldt Ranges, unites with the former stream a few miles north of the road, but both combined do not furnish water enough to make more than a succession of pools, except in very wet seasons, when, it is said, their united waters reach Salt Lake—which is extremely doubtful, there being many miles of sand between the sink and that body of water.

We leave Utah Uerritory now, for we shall be in the State of Nevada before we reach the next station.



Crossing Truckee River, six miles east of Boca, C. P. R. R.

PILOT PEAK.

This remarkable landmark, which is visible at various points along the division, lies about 35 miles south of the road, almost opposite Tecoma station. It is a lofty pile of rocks—the eastern terminus of Pilot Mountains—rising about 2,500 feet above the barren sands. For about half way from the base to the summit, the sides are shelving piles of shattered rock, huge masses crushed to atoms. Above that it rises perpendicular, the summit looking like some old castle when seen at a distance; from Promontory Point, looking westward, this vast pile can be seen on a clear day, a dark mass amid the blue haze which bounds the western horizon. To the emigrant it was a welcome landmark, pointing his course to Humboldt Wells, or Thousand Spring Valley, where he was sure to find water and feed for his weary teams, after crossing the barren waste.

TECOMA.

Ten miles west of Lucin. Elevation, 4,812 feet. This has been an unimportant signal station until recently, but the discovery of rich silver, miles south in the mountains, has give it some prominence. A new town has been laid out at the mines, called BUEL, and a smelting furnace has been erected, that report says have made some very good runs on ore from the Buel mine. The mountains are being thoroughly prospected, and many locations made, which it is claimed are very rich. The new town contains several hundred people, and prospects look favorable for the future. Mines on the opposite side of the mountain was discovered by J. H. Roberts in June, 1869; both silver and copper. The silver ore prospects well, is argentiferous galena, and from general indications the discoverer feels assured of the existence of extensive and valuable mines in the mountains near by. The copper ores, it is reported,

are very fine, but will attract little attention at present. Indications of coal mines have been found in the vicinity, but no systematic effort has yet been made to develop them.

On the north of the road, at the base of the Goose Creek range, placer mines have been found and slightly worked, but the yield of gold was too small to render them profitable, hence their abandonment.

Leaving Tecoma, we soon arrive at

MONTELLO,

Nine miles to the westward. Elevation 4,999 feet. The general aspect of the country is changing with the increasing elevation. We approach nearer the long, rough ridge of the Goose Creek Range, whose sides and gulches afford pasturage and water at intervals. We are leaving the barren sands behind us, and though the country is still uninviting it looks more capable of supporting animal life, during a portion of the year.

LORAY.

Eight miles west of Montello. Elevation, 5,555 feet. An unimportant station. Eight miles beyond this point we arrive at the end of Salt Lake Division.

TOANO STATION,

And the commencement of Humboldt Division, which extends to Winnemucca, 236 miles distant. Elevation, 5,970 feet. From Omaha, 1,214 miles; San Francisco, 700 miles. This is a regular eating station. About 20 buildings of all sorts compose the town. It is 116 miles from Carlin, and is centrally located as regards many mining districts in eastern Nevada, and will, doubtless, be the diverging point from the railroad, for the following districts, viz.: Egan Canon, Kinsley, Kern, Patterson, Ely, Pahrangat and Deep Creek—all of which are under rapid development. A stage line is now in operation from this place to Egan Canon, a distance of 90 miles south, and will soon be extended to Ely District, 225 miles, where

the celebrated *Pioche* mining company is located. North to the mines about Boise City, and Idaho City, Idaho, the distance from this place is 100 and 220 miles. The company have a fourteen stall round house, and repair shops at this place.

Leaving Toano, we begin the ascent of Cedar Pass, which divides the Desert from Humboldt Valley. We find the country more broken, but possessing more vegetation. We have passed the western line of the Desert, where, in early days, the travel-worn emigrant wearily toiled through the burning sand, his journey unenlivened by the sight of water or vegetation. One word further, regarding this desert. The term sand is generally applied, when speaking of the soil of the barren wastes which occur at intervals along the road. With one or two exceptions it is a misnomer, though it well applies to the desert we have crossed. Most of the surface of this waste is sand, fine, hard and gray, mixed with marine shells and fossilized fragments of another age. There is no evidence on which to found a hope that this portion of the country could be rendered subservient to the use of man, consisting, as it does, of beds of sands and alkali, overlaying a heavy gravel deposit. Ages must pass away before nature's wondrous changes shall render this desert fit for the habitation of man.

PEQUOP,

A signal station, 10 miles west of Toano. Elevation, 6,183 feet. Five miles further on, we pass

OTEGO.

A signal station. Five miles further on and we arrive at

INDEPENDENCE.

Independence Springs, from which the station derives its name, are near by, and supply the point with water.

Before leaving this station, we will take a short look at a series of valleys, generally known as Ruby Valley, but still bearing different names. We will begin with

INDEPENDENCE VALLEY.

A small and unproductive division, sloping to the southward from the railroad, which passes near its head, at Independence Station. Independence Springs, from which the valley derives its name, is the only water found.

The soil is gravelly, and unsuitable for farming, though it produces a fair crop of bunch grass. The valley extends to

CLOVER VALLEY,

A larger and more productive section of really the same valley, which extends into, and forms a part of

RUBY VALLEY.

And under this name we will consider the three valleys—as they are all combined. From Humboldt or Cedar Pass, a spur, or rather a low range of hills extends far to the southward. About 70 or 80 miles south of the pass, the South Fork of the Humboldt canyons through this range, running to the north, west and east of another range until it reaches the main Humboldt at Gravelly Ford. Although the range first mentioned after having united with the western range south of the South Fork, extends much farther south, we will follow it only to Fort Ruby, which is situated in the south end of the valley, near to the South Fork. From this fort to the pass is about 65 miles, which may be taken as the length of the valley. The average width is 10 miles, from the western range mentioned to the foot-hills of Ruby Range, which hem in the valley to the east. A large portion of this valley is very productive, and is occupied by settlers, mostly discharged soldiers from Fort Ruby. In the southeastern portion of the valley is

RUBY AND FRANKLIN LAKES,

Which are spoken of under the general term of Ruby Lake,—for in high water they are united, forming a brackish sheet of water about 15 miles long by seven in width, which has no outlet. It

is like Humboldt, Carson and Pyramid lakes in the Truckee Desert—merely a reservoir, where the floods accumulate to evaporate in the dry summer. The old stage road, from Salt Lake to Austin, crossed the foot of the valley at Ruby Station. About 20 miles east of the Ruby Range, lies

GOSHOOT LAKE.

Another brackish pond with two small tributaries and no outlet, rather wider and about the same length as Ruby Lake. About half-way between Goshoot and the railroad, lies

SNOW LAKE,

A circular pond about five miles in diameter. This pond possesses the same general characteristics as the others. With the exception of the valleys around these lakes and along the water-courses, the country is very uninviting in appearance, being little better than a desert.

RUBY MINES.

In the eastern or Ruby range of mountains which border the valley, very rich silver mines have been discovered. They are southeast of the valley, and distant about 40 miles from Wells. Rock taken from the mines, and assayed in San Francisco, showed from \$300 to \$600 per ton. Other silver-bearing lodes have been discovered in this vicinity, and doubtless a large district will be prospected.

We now return to the road, and pursue our journey. Leaving Independence, we find the country broken and rolling until we arrive at

MOOR'S.

On the summit of Cedar Pass, and from thence we shall have down grade for many miles until we reach the desert lying between the Humboldt and Truckee rivers.

In general outline this pass resembles a rather rough, broken plateau, bent upward in the middle, forming a natural road bed from the desert to the Humboldt Valley. It was once covered with

scrub cedar, which has been cut off for wood. To the northward, considerable wood is still obtained in the mountains. About 15 miles to the north, a high, craggy peak marks the point where Thousand Spring Valley bends to the southward, and from its divide slopes down to the valley of the Humboldt. Elevation, 6,118 feet. Two miles beyond this station, we arrive at

CEDAR,

A wood station, with an elevation of 5,978 feet. Six miles west of Cedar, the road has reached the head of a little valley, green and inviting in appearance, and the cars stop at

WELLS.

Elevation, 5,628 feet. Distance from Sacramento, 525 miles. This is one of the most noted points along the route—one possessing much interest to the tourist—though the station, of itself, occupies at present only a secondary position.

During the past fall and winter, some rich mineral discoveries have been made about 35 or 40 miles southeast of Wells, east of Clover Valley, and the Johnson & Latham Mining District has been organized. The veins are reported large and well defined, and rich in silver, copper and lead; also, large deposits of iron ore have been found. The district is well supplied with wood and water, and easy of access from the railroad. A new stage line has just been established by Woodruff & Ennor to the above-named district, and extending 100 miles south to Shellburn, near the old Overland Stage Road, in the Shellcreek mining district.

The chief point of interest around the station is the celebrated

HUMBOLDT WELLS,

Around which the emigrants used to camp while they recruited their teams after their hard journey across the desert. They are situated in the midst of a beautiful meadow or valley, which from this point slopes away until it joins with the Humboldt or main valley. The

springs, or wells, about twenty in number, are scattered over this little valley; one, from which the company obtain their supply of water, being within 200 yards of the road, and about that distance west of the station. A house has been built over it, and the water is raised into the tanks by means of an engine.

These wells would hardly be noticed by the traveler unless his attention was called to them. Nothing marks their presence except the circle of rank grass around them. When standing on the bank of one of these curious springs, you look on a still surface of water, perhaps six or seven feet across, and nearly round. No current disturbs it; it resembles a well more than a natural spring, and you look around to see the dirt which was taken therefrom when the well was dug. The water, which is slightly brackish, rises to the surface, seeping off through the loose, sandy-loam soil of the valley. No bottom has been found to these wells, and they have been sounded to a great depth. Undoubtedly they are the craters of volcanoes, long since extinct, but which, at one time, threw up this vast body of lava, of which the soil of Cedar Pass is largely composed. The whole face of the country bears evidence of the mighty change which has been taking place for centuries. Lava, in hard, rough blocks; lava decomposed and powdered; huge blocks of granite and sandstone in the foot-hills, broken, shattered and thrown around in wild confusion, are some of the signs indicative of an age when desolation reigned supreme.

THE VALLEY.

The valley in which the wells are situated is about five miles long by three wide, covered with a luxuriant growth of grass. It is excellent farming land, capable of producing luxuriant crops of vegetables, grain or grass. The low hills afford an extensive "range" and good grazing. The transition from the parched desert and barren upland, to these green

and well-watered valleys is so sudden, that it seems like the work of magic. One moment in the midst of desolation, the next in the midst of the green valleys, redolent with the aroma of the countless flowers which deck their breasts.

Leaving Humboldt Wells, we proceed down the valley for a few miles, when we enter the main

VALLEY OF THE HUMBOLDT.

This is one of the richest agricultural and grazing valleys to be found in the State. As grazing land, it is unrivaled, and for agricultural purposes it is all that could be asked. Deep, black, loam soil, moist enough for all purposes without irrigation, covers the valley from 15 inches to two feet deep. This portion of the Humboldt valley of which we are speaking, extends for about 80 miles in length, with an average width of ten miles, nearly every acre included therein being of the quality described. From Osino canyon to the head waters of the valley it is unoccupied, with the exception of a few settlers who have taken up hay ranches below Halleck. The river abounds in fish and the foot-hills in deer and other game.

THE HUMBOLDT RIVER.

This stream rises in the Humboldt Mountains, northwest of Cedar Pass. The general course of the river is westerly for about 250 miles, when it bends to the south, emptying into Humboldt Lake, about 50 miles from the Big Bend. It is a rapid stream for most of the distance, possessing few fords or convenient places for crossing. The railroad follows down its northern bank until it reaches 12 mile canon, about 16 miles west of Carlin. Here it crosses to the south side of the river and continues about 170 miles, when it crosses again and leaves the river, skirting the foot-hills in full view of the river and lake.

The main stream has many varieties of fish, and at certain seasons of the year its waters are a great resort for wild ducks and geese. Where it enters

the lake, the volume of water is much less than it is 100 miles above, owing to the aridity of the soil through which it passes. Of the valleys bordering it, we shall speak separately, as each division is totally distinct in its general features. The "old emigrant road" can be distinctly traced along the river from its head to its source.

We now commence our journey down the stream, beginning at

TULASCO,

A signal station, seven miles west of the Wells. Elevation, 5,482 feet. Passing on, we enter and cross

BISHOP'S VALLEY,

Which unites with the main valley of the Humboldt near this point; is about 60 miles long, with an average width of five miles, well-watered and very fertile.

BISHOP'S CREEK,

Which winds through the valley, is a narrow, deep stream, abounding in many varieties of fish, among which are trout of an excellent quality. It rises about 70 miles to the northeast, in a spur of the Humboldt Mountains, near Humboldt canyon. The hills from which it rises are well wooded, and abound in deer, bear, and small' er game. Crossing the creek on a Howe truss bridge, we pass on some six miles and come to the upper crossing of the Humboldt river, over a Howe truss bridge, and soon we arrive at

DEETH,

Thirteen miles west of Tulasco, a wood station. Elevation, 5,340 feet. We pass on down the valley for twelve miles, when we reach

HALLECK,

Elevation, 5,227 feet. A freight station. At this point Government stores are left for

FORT HALLECK,

A military station on the opposite side of the river. Brevet Brig.-Gen. J. I. Gregg, Colonel 8th Cavalry, commanding post; R. M. O'Reilly, Assistant Sur-

geon U. S. A., Post Surgeon. The garrison consists of company H, 8th Cav., and company I, 12th Infantry. At the time of writing, an order is issued to exchange the 8th Cavalry with the 3d Cavalry, now in New Mexico, but the precise distribution of the companies we are unable to learn before going to press with our book. At the foot of the mountain, about twelve miles distant from the station, can be seen some settlers' buildings, which are situated on the road to the post. The military post is hid from view by the intervening hills. It is situated on an elevated plateau, which lies partially behind the first range, debouching thence in a long upland, which extends some distance down the river. The valleys which lie among the hills, as well as this upland, are settled, and have proved very productive. Wheat, barley and vegetables are extensively cultivated, and a ready market is found along the railroad for the surplus crop.

Leaving Halleck, we continue down the valley four miles, when we arrive at

PEKO.

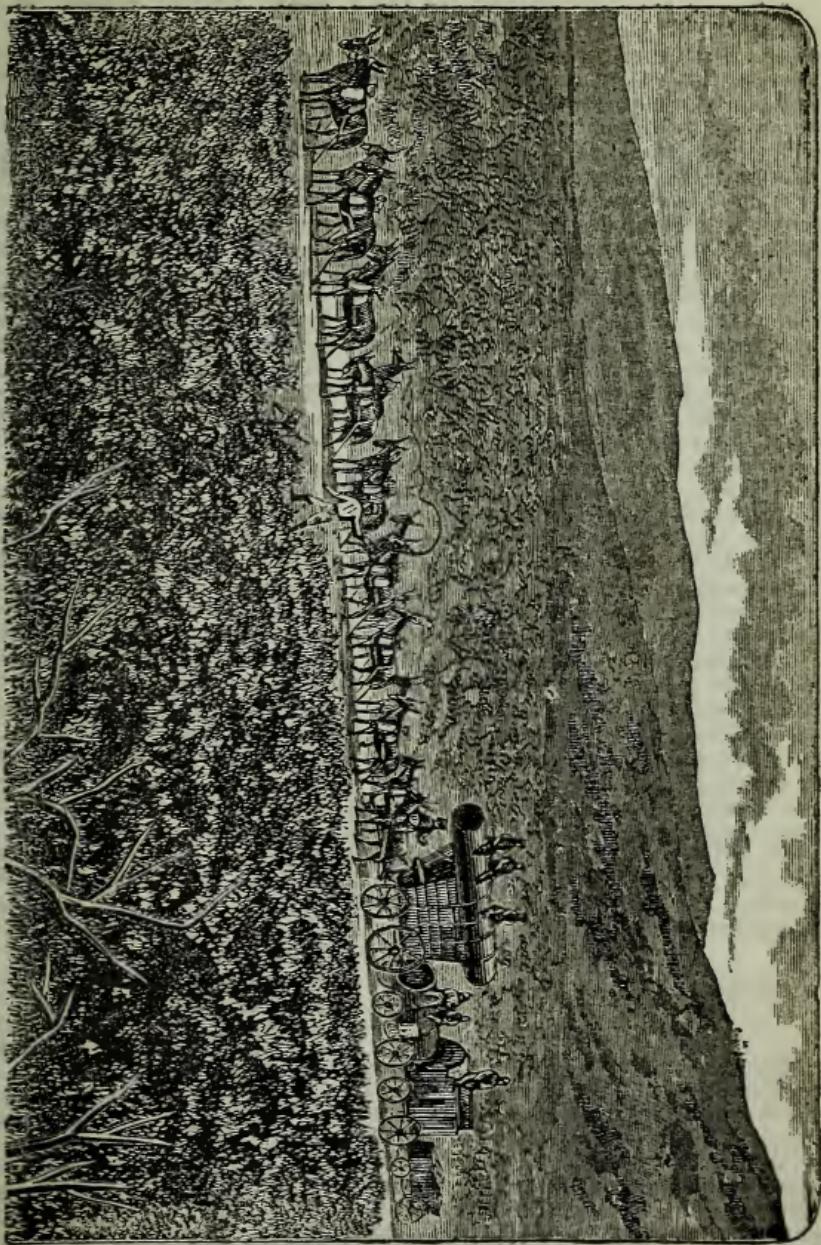
This station has nothing of interest attached to it. Elevation, 5,204 feet. Just after leaving the station we cross the

NORTH FORK

Of the Humboldt on a Howe truss bridge. This river, where it unites with the main stream, is about of equal size, perhaps larger. It rises about 100 miles to the north and receives as tributaries many small creeks and rivulets. The main stream is well stocked with various kinds of fish; and in the tributaries, trout of a fine quality are found in abundance.

THE VALLEY

Is from five to seven miles wide and covered with a heavy growth of grass. The quality of the soil is similar to that of the main valley, and, like that, is susceptible of a high state of cultivation. Wheat, barley, and vegetables of all kinds would yield handsome returns.



Mule Team, loaded with Boilers and Machinery, weighing 61,000 pounds, en route from Elko to White Pine.

The seasons are long enough, and the absence of early and late frosts would secure a matured crop. Around the head of this valley are many smaller ones, each tributary stream having its own separate body of valley land. Some are perfect gems, nestled among the hills and almost surrounded by timber. Here game in abundance is found, quail, grouse, hare, deer and bear, and, sometimes, a "mountain lion." The tourist, angler, and hunter will find enough to occupy them pleasantly for a short stay should they choose to visit this region. The main and smaller valleys are unsettled and unclaimed, excepting that portion owned by the railroad company.

One remark more, which will apply to all the valleys named. As a range for stock they have no superior west of the Rocky Mountains. The winters are mild, snow rarely falling sufficiently deep to render it necessary to feed the stock. Wild cattle are found in the valleys and among the hills, which have never received any attention or care. If stock-raisers would turn their attention to this locality they would find a large field open to a remunerative enterprise. The range is not confined to the valley alone, the foot-hills and even the mountain sides produce the bunch-grass in profusion. Wherever the sage-brush grows rank, on the hill sides, the bunch-grass thrives equally as well.

We will now return to Peko, and continue down the valley of the main stream. Ten miles beyond the last station we arrive at

OSINO.

A signal station at the head of

OSINO CANYON.

Here the valley suddenly ends. The northern range of the mountains sweeping down to the river bank, which now assumes a tortuous course, seeming to double back on itself in places, completely bewildering the traveler. Across the river the high peaks of the opposite chain rise clear and bold from the valley, contrasting strongly with the

black, broken masses of shattered mountains among which we are winding in and out, seemingly, in an endless labyrinth. Now we wind around a high point, the rail lying close to the river's brink, and next we cross a little valley with the water washing against the opposite bluffs, half a mile away. A dense mass of willow covers the bottom lands, through which the river wanders as though it had neither the desire or ability to escape from its imprisonment. Around another rocky point, and we are in a wider portion of the canyon, with an occasional strip of valley land in view, when suddenly we emerge into a beautiful valley, across which we speed—the road curving around to the right—and soon the intervening distance is passed, and the long train stops at

ELKO

Elevation 5,065 feet. From Omaha, 1,307 miles; from San Francisco, 607. Elko is a regular eating station for all trains from the East and West. A good meal can be had for \$1 currency, or 75 cents coin. It is the county-seat of Elko County. By the census of 1870, it contained 1,160 population. The town formerly consisted of wood and canvas houses—though the latter class is rapidly being replaced by something more substantial. During the last year the town has improved materially. A considerable amount of freight is shipped from here to the mines southward to Railroad District and the White Pine country. The stage lines for Hamilton in the White Pine mining district have been withdrawn, and now run from Palisade Station. The line to Railroad District, 25 miles distant, runs regularly; also the line north to Mountain City, in Cope District—distance, 80 miles; time, 20 hours; fare, \$20. The fact of the removal of the stage line to Hamilton has waked up the Elkoites on the railroad question, and a company called the "Eastern Nevada Narrow Gauge Railroad Company" has been formed, who have surveyed a line to run via South Humboldt River, Smith's Creek, Huntington Creek,

to a point near *Jacob's Well*, on the old Overland Stage road, thence via Gibson's Valley to Hamilton, White Pine District, Nevada; distance, 124½ miles. The Nevada State Legislature has granted a conditional subsidy of \$150,000 to aid the road.

HILL BEACHY.

At this point we met with the old stage pioneer of the West, though he is not an old man by any means. He looks every inch the pioneer and rambling, restless, Western stage man. The Indians, among whom he has been running his stages for years, call him "bad medicine," and keep out of his way most of the time. We asked of Mr. Beachy what state he claimed as his home. "Well, said he, "I don't know. You see, I was born in Pennsylvania, and when I was ten years old I ran away and went to Ohio, and since then I have not lived anywhere. I have been on this coast as long as any of them, so I suppose I belong here." "You established stage lines through this section when you had troublesome times with the Indians, did you not?" "O yes. We had to fight our way at first; now they are quiet." "You made friends with them, didn't you?" "Made friends! Why yes; we made friends with them. We made them such large presents of lead, that they could not pack it away, and it has kept them busy watching their treasures ever since. That, sir, is the only way to make friends with these varmints. One part of a band will be talking peace with you, while the remainder will run off your stock; then when they have you at their mercy, your friendly part of the gang will lift your scalps. O yes! I believe in the friendship of the Indians—I do!" and he turned away to give directions to his agent.

The town presents a very active, business-like appearance, strongly reminding one of the flourishing mining towns in the early times of California. Occasionally we see a long train of mules "packed" with huge loads of merchandise for mining regions where freight cannot be conveyed on wagons. The

amount of freight reshipped at this point—the total value of goods sold here by the leading houses, during a day or week—would astonish the denizens of many older and better regulated towns. The appearance of the main streets of Elko reminds us of the early days of Sacramento, when the "prairie schooner" was the only means of transporting heavy freight to the mines. [See Illustration.]

The Elko *Independent*, Democratic, a weekly newspaper, is the only one published here at present.

WARM SPRINGS.

Near town, are the warm springs, which are now attracting much attention. A hack plies between the hotel and the springs, making regular trips for the accommodation of visitors. The medicinal qualities of the water is highly spoken of.

MINES AROUND ELKO.

Valuable silver mines exist in Cope District, about eighty miles due north of Elko. From the mines to Silver City, Idaho Territory, is about 70 miles.

It lies north of the headwaters of the North Fork of the Humboldt, bordering on the Owyhee country. The section is well watered by rapid mountain streams, abounding in trout. The prospectors located several mill-sites near the mines, expecting to occupy them with mining mills at no very distant period, and two quartz mills are already in active operation. The rock from several lodes was packed on mules to Elko by the first prospectors, and from thence it was sent to San Francisco, and worked in a Hepworth pan, yielding at the rate of from \$300 to \$1,000 per ton. The results of this test had the effect to start more prospectors in that direction, and to insure the thorough prospecting and development of the mines already discovered, which now yield very rich and bid fair to prove exceedingly remunerative.

Other mines have been discovered and are now successfully worked.

There are other mineral-bearing districts which must necessarily become tributary to Elko. The Ruby Range and the range bordering the South Fork of the Humboldt possess mineral, and in several places good prospects have been obtained, and promising lodes located. It is evident that a large and rich mining section will be opened up ere long, of which Elko will remain the central point.

THE VALLEY

of the Humboldt, from the mouth of Osino canyon to the head of Five Mile canyon, cannot be ranked as among the best of the Humboldt bottom lands, though it is susceptible of cultivation to a considerable degree. But a narrow strip is meadow, the remainder being higher, gravelly land, covered with sage-brush and bunch grass. Without irrigation it is useless for agricultural purposes.

When the "Narrow Gauge" is completed, freight and passengers will leave this place once more for

WHITE PINE.

We will take a hasty look at that famous country, which now is attracting such general attention. The district lies due south of Elko, distant about 125 miles by one route, 130 by the other. It is nearly due east of Virginia City and Gold Hill, where the first silver mining excitement occurred on the Pacific slope, and by many is supposed to be on the same range which produced the Comstock and other famous lodes. Possibly such is the case, though "ranges" have been terribly shaken about in this section of our commonwealth. Among the chief mines located and worked around Hamilton and Treasure City, are the Eberhardt, California, Hidden Treasure, Lady Bryan, Chloride Flat Co.'s mines, Silver Star, Yellow Jacket, and many others.

Several miles are in active operation, and more are being put up or on their way thither. Water and wood are scarce, the former especially so, the chief supply being obtained from wells.

The altitude of the country renders it very unpleasant to new-comers, especially if their lungs are weak.

The Eberhardt mine, which first attracted attention to this locality, was discovered in '66, but the great stampede of miners and speculators to that quarter did not take place until the winter and spring of '69. As far as prospected, the veins, in a majority of cases, are not regular, being broken and turned in every direction. Some are flat, others dip at a regular angle and have solid walls. The Base Metal Range in this vicinity is attracting considerable attention at this time, and large numbers of smelting furnaces are being erected to reduce the ores into base bullion for shipment.

About four hundred people were at work in this district in February, '69, and now the population is estimated at 15,000. To give any correct idea of the magnitude of the mines or the appearance of the country, is out of the question.

TREASURE HILL,

on which stands Treasure City, is apparently one mass of ore, judging from the 175 claims which are located thereon. It is an isolated peak about 4,000 feet from base to summit, and 9,265 feet above the level of the sea. Along the eastern and western base of the hill, mountain ranges stretch away until they unite and form one chain on the north, but south of Treasure Hill they remain separated for about twelve miles, when they break away and leave a broad valley lying between them. These ranges, the Diamond and White Pine, are portioned off into mining districts, where many valuable mines have been located. The assays from the various lodes are highly flattering to the owners, but, in general, these assays are poor guarantees of what the rock will yield when worked by mill process. We remember when a friend of ours had an assay made of some rock in Gold Hill, when assays from new mines were of daily occurrence. The result was highly encouraging, the rock assaying a

trifle more in silver per ton than it would weigh if solid metal, beside \$39.10 in gold. Considering that the specimen assayed was a fragment of a grindstone, the effort of the assayer was terrific.

The principal towns in the new district are Hamilton, Treasure City, and Shermantown.

TREASURE CITY,

The principal town, containing a population of about 3,000. It is situated on Treasure Hill, two and a half miles from Hamilton, in latitude 39 deg. 14 min. 8.38 sec., longitude, 115 deg. 27 min. 47 sec. It is 120 miles in a southerly direction from Elko, and 300 miles westerly from Salt Lake. Principal hotel, the International.

HAMILTON CITY,

The county seat of White Pine, is situated at the base of Treasure Hill. It contains about 4,000 inhabitants, and is a lively, growing city. Principal hotel, Elbridge House.

The White Pine *News*, daily, and the *Inland Empire*, a daily journal, is published at this place, both live newspapers.

SHERMANTOWN,

A rapidly improving mining town, where are located a large number of smelting furnaces, engaged reducing the base silver metal into bars of base bullion, for shipment to furnaces in the east or west, where they have better facilities for saving more of the metal. This Base Metal Range is very extensive, and from the sheltered situation of Shermantown, it must be the centre of an immense business. Instead of 20 furnaces, there is work for hundreds. The town contains from 1,500 to 2,000 inhabitants.

The Shermantown *Telegraph* is published here.

THE GREAT CAVE,

Of eastern Nevada lies about eighty-five miles to the southwest of White Pine. It is situated in one of the low foot-hills of the Shell Creek Range, which extends for about two miles into a branch of Steptoe valley. The ridge is low, not

over 60 or 65 feet high, and presents no indications which would lead one to suspect that it guarded the entrance to an immense cavern. The entrance to the cave would hardly be noticed by travelers, it being very low and partially obscured. A rock archway, small and dark, admits the explorer, who must pass along a low passage for about 20 feet, when it gradually widens out, with a corresponding elevation of roof. Many of the chambers discovered are of great size; one, called the dancing hall, being about seventy by ninety feet. The roof is about forty feet from the floor, which is covered with fine gray sand. Opening into this chamber are several smaller ones, and, near by, a clear, cold spring of excellent water gushes forth from the rock. Further on are more chambers, the walls of which are covered with stalactites of varied styles of beauty. Stalagmites are found on the floors in great numbers. It is not known how far this cave extends, but it has been explored for 4,000 feet, when a deep chasm prevented further exploration.

The Indians in this vicinity have a curious fear of this place, and cannot be tempted to venture any distance within its haunted recesses. They have a legend that "heap" Indians went in once for a long way and none ever returned. But one who ventured in many moons ago, was lucky enough to escape, with the loss of those who accompanied him, and he is now styled "Cave Indian." According to the legend, he ventured in with some of his tribe, and traveled until he came to a beautiful stream of water, where dwelt a great many Indians, who had small ponies and beautiful squaws. Though urged to stay with this people, "Cave" preferred to return to sunlight. Watching his chances when all were asleep, he stole away, and, after great suffering, succeeded in reaching the mouth of the cave, but his people still live in the bowels of the earth.

The Indians firmly believe the story, and will not venture within the darkness. Another story is current among the peo-

ple who live near by, which is, that the Mormons were once possessors of this cave, and at the time when they had the rupture with the United States Government used it as a hiding place for the plate and treasures of the Church and the valuables of the Mormon elders. The existence of the cave was not known to the whites, unless the Mormons knew of it, until '66.

Before returning to the Railroad, let us make a few remarks regarding the mining features about the country at which we have been glancing. In the latter part of the summer of 1858, a party of prospectors from Mariposa in California crossed the Sierra Nevada mountains *via* Yo Semite to Mono Lake, then in Utah, but now in that part of the country, set off to form Nevada. For three years the party worked placer mines and other gold along the various canyons and gulches extending eastward from the Sierras, which led others to continue prospecting, further north, and who discovered Comstock Ledge. Other prospectors followed, and the discovery of rich veins in Lander, Esmeralda, Nye and Humboldt counties, and in the adjoining territory of Idaho, was the result. The great "unexplored desert" on the map was avoided until 1865 and 1866, when parties began to branch out and discover the rich argentiferous quartz and fine timber land extending along a series of parallel valleys from the Humboldt to the Colorado river. Several New York companies became interested in these discoveries, and erected a 20 Stamp Mill at Newark, 22 miles north of where Treasure City now stands, to work veins in the Diamond range. Across the valley opposite Newark, White Pine mountain rises 10,285 feet. Here the "Monte Christo" mill was erected, at which a Shoshone Indian came one day with a specimen of better "nappias" than had yet been discovered, and, by his guidance, the rich mines discovered at Treasure Hill, and the "Hidden Treasure" mine were located and recorded, on the 14th of September, 1867. But aside from the production

of mineral, along these mountain ranges, another source of wealth exists in the valleys extending through Nevada and Utah. We refer to that branch of business which has been gradually increasing, one which will bring a large revenue to the settlers along these valleys, in stock-raising. Bunch grass grows in abundance, and cattle are easily wintered and fattened, finding a ready market in the mining districts and westward to Sacramento and San Francisco.

Passing down the valley from Elko, dotted with the hamlets of the rancher, for about nine miles, we come opposite

THE SOUTH FORK

Of the Humboldt. This stream rises about 100 miles to the southeast. It canyons through Ruby Mountains, and then follows down the eastern side of one of the numerous ranges, which, under the general name of the Humboldt Mountains, intersect the country.

THE VALLEY.

For portions of the distance, there is fine valley land along the stream, ranging from one to seven miles wide. Taken as a body, it is inferior to either the main or the North Fork valleys, still much good grazing land can be obtained, as well as land adapted to cultivation.

MOLEEN.

An unimportant side-track, 12 miles from Elko. Elevation, 4,981 feet. Leaving Moleen, we find the valley widening, and with a changed appearance. The meadow lands are broad and green, extending over most of the valley; on the right, the bluffs are high, and covered with luxuriant bunch grass. Soon we arrive at

FIVE MILE CANYON.

Through this canyon the river runs quite rapidly. Its clear waters sparkling in the sunlight as they speed along. The narrow strip of meadow lands is at times almost crowded out by the low

hills, which creep down to the water's edge.

The scenery along this canyon is hardly surpassed by the bold and varied panorama presented to our view along the base of the snow-capped mountains, through which the river and railroad have forced their way. Soon after entering the canyon, we pass several isolated towers of conglomerate rock, towering to the height of nearly 200 feet. Leaving this canyon, we find

SUSAN VALLEY.

Another strip of good farming land, about 20 miles long by four wide, bordering the East Fork of Maggie's Creek. Among the foot-hills of the Owyhee Range are many beautiful, fertile valleys, well watered by mountain streams, waiting only the advent of the settler to transform them into productive farms. Timber is plenty in the ravines and on the hill-sides, sufficient for the wants of a large population.

Passing on, we cross

MAGGIE'S CREEK,

Which empties into the Humboldt about one mile above Carlin. This stream is named for a beautiful Scotch girl, whose parents stayed here for a time, while "recruiting their stock," in the old times when the early emigrants toiled up the river. It rises in the Owyhee Mountains, about 80 miles to the northward.

The valley through which the stream flows is from three to five miles wide and very fertile. It extends to the base of the mountains, about 70 miles, and is unsettled. Judge Prescott has surveyed and located a toll road, *via* this valley to Idaho Territory. The stream affords excellent trout fishing, and game of various kinds abound on the hills bordering the valley.

CARLIN,

Eleven miles west from Moleen. Elevation, 4,903 feet. Distance from Omaha, 1,330 miles; from San Francisco, 584 miles. The town is composed of adobe, wood and canvas buildings, and contains

about 900 inhabitants. It has several hotels and eating-houses, chief of which is the Railroad House, before which the trains stop. Road completed to this point, Dec. 20th, 1868. The company have located the offices of Humboldt Division here. Also,

DIVISION WORKSHOPS

At this place. They are built of wood and consist of a round-house, machine, car, and blacksmith shop. The round-house has 16 stalls. The machine shop is 82 by 180, car shop 60 by 140, and blacksmith shop 40 by 69 feet.

The surrounding country is bountifully supplied with wood and water, and connected with Carlin by a good wagon road of easy grade.

LINES OF TRAVEL.

A line of six-horse stages has been established by Messrs. Payne & Palmer, running to Railroad District, Mineral Hill, and Eureka, connecting there with stages for Hamilton and Austin. The route crosses the river about one mile west of Carlin, upon a good, substantial bridge, and through a natural pass into PINE VALLEY ; is favorably located, not only on account of the absence of low, alkali soil, but on account of the abundance of grass and water found along the route.

This valley is about 40 miles long by seven wide; is good agricultural land, well watered by Pine creek, a never-failing stream, which traverses its entire length. Along this stream, and on the surrounding hills, vast quantities of wood are obtained for the use of the road.

Proceeding up the valley 30 miles, at the first station, the road crosses Sulphur Range, by Berry's Pass, a low break in the hills; and about 10 miles beyond the first station, the road enters

DIAMOND VALLEY.

This valley is about 40 miles in length.

"CORRAL" (Spanish).—A pen made of posts set on end in the ground close together, and fastened with raw-hide thongs, or by wagons drawn in a circle forming an enclosure.

Its greatest width is about 10 miles. It is watered by numerous mountain springs, but has no running streams, and affords excellent grazing. The road runs diagonally across the valley until it reaches the base of Diamond Range, at Treffern's station, on the old stage road from Austin to Hamilton. Thence the road proceeds up Simpson's creek, crossing Diamond Range, and follows down Pinto creek, enters Gillson's valley at Pinto station; thence by the Pancake road to Hamilton.

The road from here north, up the valley of Maggie's creek, is now open, and arrangements are completed for the establishment of a line of stages from this place to Independence Valley, Bull Run and Cope, extending on to Idaho. This will make those promising mining localities easy of access from the railroad; and there has already, quite a quantity of lumber and other material for working the placer "diggings," in Independence Valley, gone forward this season.

MINES.

Carlin claims her share in the trade of the Goose Creek Mining District, which will be reached by the toll-road up Maggie's creek, before mentioned. By the White Pine road the mines of Sulphur Range, Ruby Range and Diamond Range are brought in close connection with the town. The White Pine District will also be open to trade, which will give this place an equal standing with Elko, in point of freight and travel, to and from these mines.

Several new mining districts have been organized south of here, the past season, among which are the Eureka, Spring Valley, Newark, Mineral Hill and Railroad Districts; some of which, in extent and richness, bid fair to surpass even those of White Pine. Railroad District, the last organized, is only about 15 miles south of Carlin, and abounds in rich and extensive veins of silver, copper and galena ores, as well as of iron. One smelting furnace is nearly completed, and arrangements have been made to erect

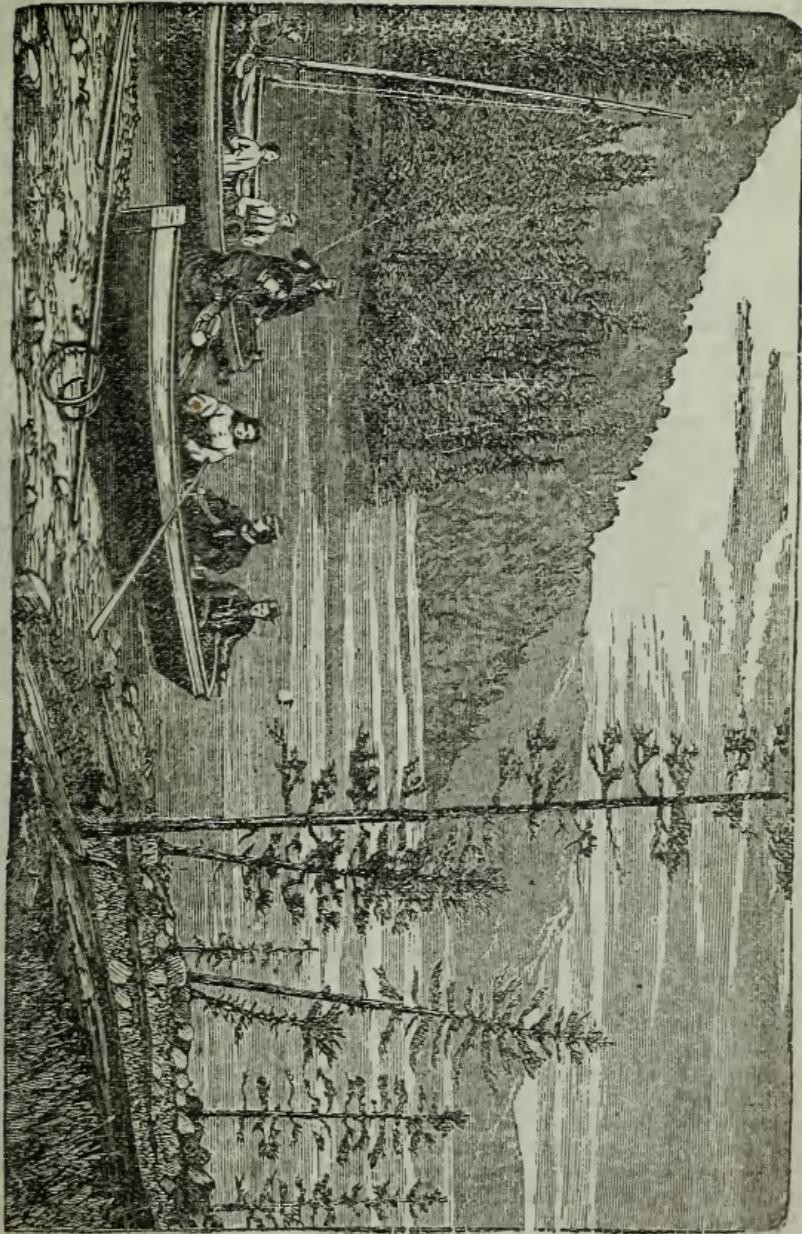
others in the district as soon as possible. There are extensive veins which are rich in galena and silver, and parties who are best informed upon the subject are sanguine that the yield of base bullion from this district, the coming season, will be very large. Mineral Hill District, 40 miles south of Carlin, was discovered July, 1869, since which time considerable quantities of ore have been sent to Austin and other points for reduction, yielding from \$300 to \$600 per ton in silver. Arrangements are nearly completed for the erection of two quartz mills in this district, early this spring. The village of Mineral Hill now contains nearly 500 inhabitants, with hotels, express offices, assay office, &c.

While such developments and industry have been visible south of here, the rich mineral country lying north, and extending to the waters of the Owyhee, has not been entirely neglected, and has rewarded the labors of the sturdy "prospector" by the discoveries of rich placer gold mines, and veins of rich silver ores. The placer gold mines of Independence Valley are some 60 miles north of here, while the silver mining districts of Bull Run and Cope are from 75 to 80 miles distant. These districts are already attracting the attention of experienced miners and capitalists, and will, no doubt, richly reward judicious investments in, and practical working of, them, the coming season.

MARY'S CREEK

This is a little creek which rises three miles north of Carlin, entering the Humboldt river at that point. It rises in a beautiful lakelet, nestled among the hills and bordered by a narrow slip of fine valley land. The valley of the stream, and that portion surrounding its headwaters, is occupied by settlers.

Leaving Carlin, we proceed down the river, the green meadows continuing fair and wide. Now, the sloping hills give place to lofty mountains, which close in on either hand, shutting



Donner Lake.—Boating Party. See page 166.

out the valley. From the appearance of this mountain range, one would suppose that it had extended across the valley at one time, forming a vast lake of the waters of the river. Then some mighty convulsion of nature rent the solid wall asunder, forming a passage for the waters which wash the base of cliffs which are from 500 to 1,500 feet high. This place is generally known as

HUMBOLDT CANYON.

[See illustrations.] The Palisades, or the Twelve Mile Canyon. Although it does not possess similar points of interest with Echo and Weber canyons, yet in many particulars the scenery is equally grand. The absence of varied coloring may be urged against its claims to equality with those places, but on the other hand its bleak, bare, brown walls possess a majesty and gloomy grandeur which coloring could not improve. In passing down this canyon, we seem to be passing between two walls, which threaten to close together ere we shall gain the outlet. The river rolls at our feet, a rapid, boiling current, tossed from side to side of the gorge by the rocks, wasting its fury in vain attempts to break away its prison walls. The walls in places have crumbled, and large masses of crushed rocks slope down to the river brink. Seams of iron ore and copper-bearing rock break the monotony of color, showing the existence of large deposits of these materials among these brown old mountains. Now we pass "Red Cliff," which rears its battered frontlet, 1,000 feet above the water. A colony of swallows have taken possession of the rock, and built their curious nests upon its face. From out their mud palaces they look down upon us, no doubt wondering about the great monster rushing past, and after he has disappeared, gossiping among themselves of the good old times when his presence was unknown in the canyon. Now, we pass "Maggie's Bower," a brown arch on the face of the cliff, about 500 feet from its base. We could not see much bower, unless it was the left bower, for

we left it behind us. But we thought we should pity Maggie if she had to sit in that bower and wait for lovers.

Nine miles from Carlin, we arrive at

PALISADE STATION.

Elevation, 4840. Woodruff and Enno have put on a new stage line to White Pine, via Mineral Hill, 30 miles; Eureka, 85 miles; and Hamilton City, 115 miles. Fast freight lines run to all points South. Passing on to the west, one of the most noted points in the canyon is on the opposite side of the river, and is called the

DEVIL'S PEAK.

This a perpendicular rock, probably 1,500 feet high, rising from the water's edge. In a cleft on the topmost peak are the remains of a gigantic bird's nest. What sort of birds made their eyrie here, we do not pretend to know. From appearances, they belonged to an extinct species, or possibly to the condor family; the nest looks to be four or five feet across, built of brush—some of the sticks being quite large. Let us suppose that it forms a connecting link between the misty past and the busy present, and speculate on the age when gigantic birds existed; when the clear waters of the Humboldt were but filthy ooze; when the monsters of the early days held high carnival along the boiling, slimy Humboldt river. Then the monster birds sat in their eyrie, and pounced down upon some unlucky dozen-legged monster with a head just three times the length of its boneless body, and after depositing its unwieldy carcass on the rocks by their nest, feasted on it at their leisure. We may suppose all this, though these unsightly creatures which learned men tell of have passed away, and neither the railroad or the missionaries had aught to do with their leaving.

While we have been speculating, the cars have been rushing down the stream, passing the towering bluffs and castellated rocks, which at first view look like some old brown castle, forsaken by its founders, and left to ruin, desolation and decay.

We cross the river on a fine Howe truss bridge, and from this point we shall keep on the southern side of the stream until we near Humboldt Lake, when we cross it again, and for the last time. The rocks are less lofty now, and break away from the river less abruptly. We emerge from the canyon at

CLURO.

A flag station, ten miles west of Palisade. Elevation, 4,766 feet. Passing on, we enter a more open country, with strips of meadow along the river's brink. Near this point, is where the powder magazine of the railroad company exploded. While building the road through the canyon in '68, the company had a magazine in the rocks by the road side. By some means the powder was exploded, killing and wounding several of the laborers.

West of the river, and at the point on the opposite side, we notice a peculiar formation not seen elsewhere in the canyon. Where the road is cut through these points, we find them to consist of gravel, sand and cement, having all the appearances of gold-bearing, gravel-beds. It is an unmistakable water wash, and not caused by volcanic wear. Fine layers of sand, from one to five feet thick, are interspersed through the gravel, showing where the water rested and the sediment settled.

Near Cluro, the "old emigrant road" crosses the river at

GRAVELLY FORD.

This was one of the most noted points on the river in early days. Then, the canyon through which we have just passed was impassable. The long lines of emigrant wagons could not pass through the mighty chasm, but were obliged to turn and toil over the mountains until they could descend into the valley again. Coming to this point on the south side of the river, they crossed and followed up a slope of the opposite hills; thence along the table-land, and from thence to the valley below. A few would leave the river lower down, and bear away to the south, but

the road was long and rough before they reached the valley above the canyon. There were, and now are, other fords on the river, lower down, but none were as safe as this. With sloping gravelly banks, and a hard gravel bottom, it offered superior advantages to the emigrant. Hence, it became a noted place--the point to which the westward bound emigrant looked forward with great interest. Here was excellent grazing for their travel-worn teams. Owing to these considerations, large bodies of emigrants were often encamped here for weeks. At times the river would be too high, and they would wait for the torrent to subside. The Indians—Shoshones—knew this also, and many a skirmish took place between them and their white brothers, caused by mistaken ideas regarding the ownership of the emigrant's stock.

Connected with this place is an incident which, for the honor of the men who performed the Christian act, we will relate. Near to the Ford is a low hillock surmounted by a cross, which marks (to the left)

THE MAIDEN'S GRAVE.

In the early times spoken of, a party of emigrants from Missouri were encamped here, waiting for the water to subside. Among them were many families, women and children, who were accompanying their protectors to the land of gold. While here, the daughter of the train-master, an estimable young lady of 18 years, fell sick, and despite the watchful care and loving tenderness of friends and kindred, her pure spirit floated into that unknown mist which enwraps the earth, dividing the real from the ideal, the mortal from the immortal. Her friends reared an humble head-board to her memory, and, in course of time—among the new life opening to them on the Pacific slope—the young girl's fate and grave were alike forgotten by all but her immediate relatives. When the advance guard of the Central railroad—the graders and culvert men—came to Gravelly Ford,

they found the lone grave and the fast decaying head-board. The sight awoke the finer feelings of their nature and aroused their sympathies, for they were men, these brown, toil-stained laborers.

The "culvert men" (masons) concluded that it was not consistent with Christian usage to leave a grave exposed and undefended from the incursion of beasts of prey. With such men to think was to act, and in a few days the lone grave was enclosed with a solid wall and a cross—the sacred emblem of immortality—took the place of the old head-board. In the day when the final reckoning between these men and the recording angel is adjusted, we think that they will find a credit for that deed which will offset many little debit in the ledger of good and evil. Perhaps a fair spirit above may smile a blessing on their lives in recompense of the noble deed. The grave is on the south side of the road upon a low bluff. In October, 1871, the Superintendent of the Division erected over it a fine large cross—upon one side is inscribed "THE MAIDEN'S GRAVE," on the other, her name, "Lucinda Duncan." This much in tribute of respect due the last resting place of the dead.

Leaving Gravelly Ford, we proceed down the river, crossing narrow patches of meadow land winding around the base of the low hills, until we reach a broader valley, across which the road runs on an embankment. The valley is green and inviting and the culverts in the road bed are evidences that there is plenty of water in it at times. It is called Hot Spring Valley, and is about six miles long by one broad. It lies about four miles below Cluro, and extends southeastward. Now, if we look up this valley, we perhaps behold a column of steam which indicates the presence of the celebrated

HOT SPRINGS.

If you do not behold the steam, and the springs are not always in active operation, you will behold a long yellowish, red line, stretching for a full half mile around a barren hill-side. From this line the sulphuric wash descends the

hill-side, desolating everything in its course, its waters escaping through the bogs of the valley we are now crossing. From this line, around the hill-side, escapes at intervals, columns of steam and, at times, of boiling muddy water, which flows down the hill-side causing the reddish waste you see yonder. At times all is quiet; then come little puffs of steam, then long and frequent jets, which often shoot 30 feet high. And, oh! aint the water hot? Woe to the unlucky hombre who kneels down to quench his thirst at one of these quiet, harmless-looking springs. Phew, the skin of his mouth is gone, and oh, what a vast amount of energetic language is hurled at the smiling, placid spring, which suddenly resents the idea of being blessed, and to show the utter absurdity of the attempt suddenly sends a column of spray, steam and muddy sulphur water 20 or 30 feet into the air, and all is still again. There are about 100 of these bubbling curiosities around the hill, their united waters forming quite a brook, which wanders among the bogs and fens of the valley until it reaches the river some five miles away.

Across the river to the northward can be seen the long, unbroken slopes which stretch away until they are lost in that cold blue line—the Idaho Mountains—which rise against the northern sky. Behind that gray old peak, which is barely discernible, the head-waters of the North Fork of the Humboldt break away when starting on its journey for the main river. Farther to the left, and nearer, from among that darker clump of hills, Maggie's creek finds its source. While looking at these scenes, we have passed through Copper canyon, and arrived at

BE-O-WA-WE,

Eight miles west of Cluro. Elevation, 4,690 feet. The Cortes mines and mills are situated about 35 miles south of this station, with which they are connected by a good road. At this point, the Red Range throws a spur nearly across the valley, cutting it in two. It looks as

though the spur extended clear across at one time, damming up the waters of the river, as at the Palisades. The water-wash far up the hill side is in evidence of the theory that such was once the case, and that the waters cut this narrow gorge, through which they speed along, unmindful of the mighty work done in former years, when the resistless current "forced a highway to the sea," and drained a mighty lake—leaving in its place green meadows.

Here, on this red ridge, is the dividing line between the Shoshones and the Piutes, two tribes of Indians, who seemed to be created for the express purpose of worrying emigrants, stealing stock, eating grasshoppers, and preying on themselves and everybody else. The Shoshones are very degraded Indians, and like the Ishmaelites or Pariahs of old, their hand is against every man, and every man's hand is (or ought to be) against them. At this point, nature has so fortified the entrance of the valley, that a handful of determined rangers could hold the entrance against any force the savages could bring against them. The term Be-o-wa-we signifies gate, and it is literal in its significance.

Leaving Be-o-wa-we, we pass through the gate, and winding along by the hill-side, we cross a fill over the low meadows, which here are very narrow. In places the short elbows of the tortuous stream wash the rock-fills and slopes on which rests the road bed. The "bottom" is broad, but is covered with willows, with the exception of the narrow meadows spoken of. Amid these willows, the stream winds and twists about, through innumerable sloughs and creeks, as though undecided whether to leave this shady retreat for the barren plains below. Perhaps the traveler will see a flock of pelicans disporting in the waters on their return from their daily fishing excursion to Humboldt Lake. These birds, at certain seasons of the year, are to be found here and along the river for about 20 miles below, in great numbers. They build their nests in these willow islands and rear their young

undisturbed, for even an Indian cannot penetrate this swampy, treacherous fastness. Every morning the old birds can be seen taking their flight to Humboldt Lake, where, in its shallow waters, they load themselves with fish, returning towards night, to feed their young and secrete themselves in their hiding places. Passing along by these willow islands and slips of meadow, we find ourselves at

SHOSHONE,

Ten miles west of Be-o-wa-we. Elevation, 4,636 feet. On our right is a long, bold mountain, which rises up clear and sharp from the river's brink. It seems near, but between us and its southern base is a wide bottom land and the river, which here really "spreads itself." We saw the same point when emerging from Be-o-wa-we, or "the gate," and it will continue in sight for many miles. It is known as

BATTLE MOUNTAIN.

It is so called from an Indian fight, which took place in this part of the country some years ago, but not on this mountain of which we are speaking. There are several ranges near by, all bearing the same general name. This range, being the most prominent, deserves a passing notice. It lies north of the river, between the Owyhee Range on the north and the Reese River Mountains on the south. Its base is washed by the river its entire length, from 50 to 75 miles. It presents an almost unbroken surface and even altitude the entire distance. In places it rises in bold bluffs, in others it slopes away from base to summit, but in each case the same altitude is reached. It is about 1,500 feet high, the top or summit appearing to be table-land. Silver and copper mines have been prospected with good results.

Behind this range are wide valleys, which slope away to the river at either end of the range, leaving it comparatively isolated.

ROCK CREEK.

Opposite of Shoshone Point, Rock

creek empties its waters into the Humboldt. It rises about 40 miles to the northward and is bordered by a beautiful valley about four miles wide. The stream is well stocked with fish, among which are the mountain trout. In the country around the head waters of the stream is found plenty of game of various kinds, including deer and bear.

COPPER.

Copper mines of vast size and great richness are found in the valley of Rock creek, and among the adjoining hills. Whenever the copper interest becomes of sufficient importance to warrant the opening of these mines, this section will prove one of great importance.

Leaving Shoshone we pursue our way down the river, the road leading back from the meadow land and passing along an upland, covered with sage-brush. The hills on our left are smooth and covered with a good coat of bunch grass, affording most excellent pasturage for stock, summer and winter. There are springs of good water in the canyons, where is also obtained considerable wood, pine and cedar. Now we find broad meadows again, and here we see the huge hay-stacks and piles of baled hay, awaiting transportation. We pass by them and the cars stop at

ARGENTA,

Eleven miles west of Shoshone. Elevation, 4,548 feet. This was formerly a regular eating station and the distributing point for Austin and the Reese River country, now only a signal station, with few buildings. Here the regular through passenger trains from the East and West meet.

PARADISE VALLEY,

Lies on the north side of the river, nearly opposite this station. It is about 60 miles long by eight wide, very fertile and thickly settled.

EDEN VALLEY,

The northern division of Paradise valley, is about twenty miles long and five wide. In general features it resembles

the other, the whole comprising one of the richest farming sections in the State. Camp Scott and Santa Rosa are situated in the head of the valley, and other small towns have sprung up at other points. The settlers have two grist and several saw mills on

PARADISE CREEK,

A clear, cold mountain stream, which rises in the Owyhee mountains and flows through the valleys to the Humboldt. Salmon trout of enormous size are found in the stream and its tributaries. Bear, deer, silver-gray foxes, and other game abound on the hills which border the valley.

FREIGHTING.

From Argenta to Paradise and Eden valleys, a considerable freight is taken by ox-teams, also to the Owyhee country. The road crosses the drives by a ford near town, and after leaving the valley, follows a spur of the mountains until the summit is obtained.

THE COPPER AND GALENA MINES

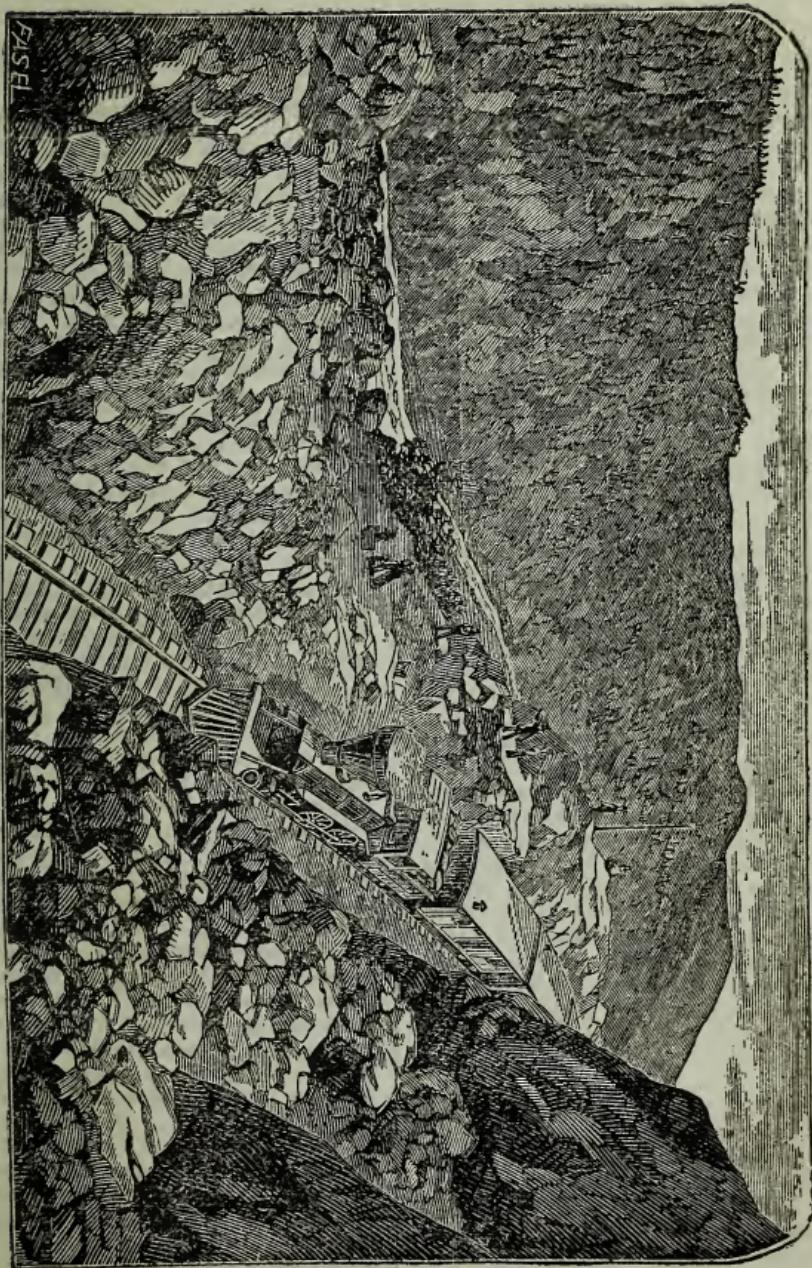
Of the Battle Mountain Mining District are extensive and rich. They have already attracted the attention of capitalists, and an English company have purchased several copper claims, and are engaged in opening and working them, shipping their ore to Swansea, England, via San Francisco. Large quantities of copper, galena and silver ores are being shipped from the mines in this district to San Francisco for reduction or sale, resulting in profit to those engaged in the business.

FIRE-BRICK.

Large beds of clay, of which excellent fire brick can be made, are found in many places here. Nearly every cut through the gravel points shows large deposits of it.

Leaving Argenta, we proceed down the valley, keeping upon the sage land. The river course is marked by green meadows, fringed with willows, and occasionally the house of a settler can be seen on its banks. Clumps of wild

FASEL



Great American Canyon. See page 173.

rye and bunch grass are scattered over it at intervals, marking the places where moisture exists.

BATTLE MOUNTAIN STATION.

Elevation, 4,508 feet. A regular eating station. Passengers who are desirous of visiting the neighboring mines, will leave the cars. Freight destined for the mines is also left here. This is now the distributing point for the Battle Mountain, Galena and Copper Canyon mining camps in the mountains just south of here, as well as for Austin, and the Reese River country.

The Northwestern Stage Company run a daily line of stages from here to Battle Mountain mines, 7 miles; Galena, 12 miles; and to Austin, 90 miles. A fast freight line runs to the same sections daily.

MINES.

The principal mining districts tributary to Battle Mountain Station lie to the southward. In connection with them we will speak of the general features of the country in which these districts are located.

LANDER COUNTY

Is one of the northeastern counties of Nevada, and noted for its mines. The Toiyabe Mountains extend north and south through the county, bearing many and rich veins of silver ore. Many mining districts have been laid off and prospected with very flattering results. The general character of the ore is refractory, and requires desulphurization. The lodes, as a general thing, are small, especially in the Reese River district, but more valuable on that account, as the mineral is more concentrated.

AUSTIN,

The county-seat of Lander, and the principal town in this section, is located near the summit of the Toiyabe Range, 90 miles south of the railroad, and contains 1,825 inhabitants. It is connected by stage with Hamilton, Cortez, Belmont, and intervening towns. The *Reese River Reveille*, daily, is published at this place.

The principal mining district of the county contains the towns of Austin and Clifton, and is called the

REESE RIVER MINING DISTRICT.

Located 10th of May, '62. Silver ore was first discovered in this district by W. M. Talcott, in May, 1862. At that time he was engaged in hauling wood from the hill-side, where the city of Austin now stands, to the stage station at Jacob's Springs, when he discovered a metal-bearing quartz vein. He carried some of the rock to the station, where it was examined and found to contain silver. The discoverer located the vein, giving it the name of Pony. The district was laid off, enclosing an area of 70 miles east and west by 20 miles north and south, to which the name of Reese River was given. A code of laws was established and W. M. Talcott elected Recorder.

Prospectors flocked in, and the country was pretty thoroughly prospected during '62 and '63. Many veins were located, some of them proving very valuable. Mills were erected at different points, and from that time forward the district has been in a prosperous condition. The district, as originally mapped out, exists no longer, having been subdivided into several smaller ones.

Other districts, including Washington, Eureka, Kinsley, Cortez and others, located in this section of the State, containing noted veins of silver and copper ores, are tributary to Austin in trade. This section of the State is now the most prosperous mining portion. White Pine, Reese River and other noted mining localities are located within easy distance of the railroad, by which they are now supplied with machinery, merchandise, etc., at rates far below the cost of such articles in less favored localities. The result of this has been the introduction of more and better machinery, the reduction in cost of milling ores, and the opening and working of veins of lower grade ores, which could not be profitably worked when high milling prices ruled.

We will now leave the Reese River mines and return to Battle Mountain. The opening in the lower part of the valley, which here joins with the Humboldt, is

REESE RIVER VALLEY.

It is very diversified in feature, being very wide at some points—from seven to ten miles—and then dwindling down to narrow strips of meadow or barren sand. Some portions of the valley are susceptible of cultivation, and possess an excellent soil. Other portions are barren sand and gravel wastes, on which only the sage brush flourishes. This valley is also known by old emigrants as "Whirlwind Valley," and passengers will frequently see columns of dust ascending skywards. Reese River, which flows through this valley, rises to the south, 180 to 200 miles distant. It has many tributaries, which find their source in the mountain ranges that extend on either side of the river its entire length. It sinks in the valley about 20 or 30 miles from where the valley opens on the Humboldt. During the winter and spring floods the waters reach the Humboldt, but only in very wet times. Near where the waters sink was fought the celebrated

BATTLE

between the Indians and whites—settlers and emigrants—which gave the general name of Battle Mountain to these ranges. A party of marauding Shoshone Indians had stolen a lot of stock from the emigrants and settlers in this region, who banded themselves together and gave chase. They overtook them at this point and the fight commenced. From point to point, from rock to rock, down to the water's edge they drove the redskins, who, finding themselves surrounded, fought with the stubbornness of despair. When night closed in the settlers found themselves in possession of their stock and a hard fought field. How many Indians emigrated to the happy hunting grounds of the spirits no one knew, but from this time forward the power of the tribe was broken. It is supposed that a

hundred or more braves went off in pursuit of shadows, as they were never more seen. The following spring hunters found many skeletons in the hills, supposed to be those of the wounded braves who crawled away during the fight.

The Diamond, Dun Glen, Grass Valley and Humboldt mining districts are tributaries to Battle Mountain station. In the Grass Valley and Diamond district are three ten-stamp mills, which are constantly employed. Grass Valley, which lies between the Sonoma and Dun Glen Ranges, has two mills in operation, and more in course of construction.

GRASS VALLEY,

from which the district derives its name, is about five miles wide, and extends from the opening of Reese river to Humboldt lake, some 50 miles to the westward. The hills near the station are separated from the main range by this valley, leaving them isolated, Grass Valley bordering their southern and eastern sides, while the main valley of the Humboldt encircles their northern and western base.

In the upper end of Grass Valley are several hot springs, strongly impregnated with sulphur and other minerals, but they attract no particular attention, being too common to excite curiosity.

On leaving the station we skirt the base of the mountains, leaving the river far to our right. We are now in the widest part of the valley, about opposite the

BIG BEND OF THE HUMBOLDT.

After passing the palisades the river inclines to the south for about 30 miles, when it sweeps away to the north, along the base of Battle Mountain, for 30 miles further; then turning nearly due south, it follows that direction until it discharges its waters in Humboldt lake, about 50 miles by the river course from the great elbow, forming a vast semicircle, washed by its waters for threefourths of the circumference. This vast area of land, or most of it—comprising many thousand acres of level upland, bordered by green meadows—is susceptible of cultivation

when irrigated. The sage brush grows luxuriantly, and where the alkali beds do not appear the soil produces a good crop of bunch grass. The road takes the short side of the semicircle, keeping close to the foot of the isolated Humboldt Spur. On the opposite side of the river, behind the Battle Mountain range, are several valleys, watered by the mountain streams, and affording a large area of first class farming land. Chief among these is

QUINN'S VALLEY,

watered by the river of that name. The arable portion of the valley is about 75 miles long, ranging in width from three to seven miles. It is a fine body of valley land, capable of producing luxuriant crops of grain, grass or vegetables. The hills which enclose it afford excellent pasture. Timber of various qualities—spruce and pine predominating—is found in the gulches and ravines of the mountains. Game of different kinds is abundant. The Indians claim this country, and would doubtless worry small parties of settlers.

QUINN'S RIVER,

which flows through this valley, is a large stream, rising in the St. Rosa hills, of the Owyhee range, about 150 miles distant. From its source the general course of the river is due south for about 80 miles, when it turns and runs due west, until it reaches Mud Lake. During the summer but little, if any, of its waters reach that place, being absorbed by the barren plain which lies between the foot hills and the Humboldt River. Near the head waters of Quinn's River the

CROOKED CREEK,

or Antelope, rises and flows due north for about 50 miles, when it empties its waters into the Owyhee river. The head waters of the streams which run from the southern slope of the Owyhee mountains are well supplied with salmon and trout, and other varieties of fish. Quail, grouse, and four-footed game are abundant in the valleys and timbered mountains. Near the settlements the Indians are friendly, but the hunter and prospector must watch them as soon as he leaves the protection of the towns.

Returning to the station, we can see evidences of mining and prospecting in various places to the right, where the hills come near the road; we can also see the opening to

THE LITTLE GIANT MINE,

nearly opposite the station, and about six miles distant, in the western point of the hills which mark the entrance to Reese River Valley. It is one of the leading mines of Battle Mountain district, and the only one that has as yet been fully opened and worked. On the side of the second range, about four miles to the left of the road, the main shaft works are located. The "dump," or deposit of waste rock, can be plainly seen from the road. The mine is said to be very rich and extensive. The vein, when first prospected, was not supposed to be so rich, owing to the peculiar character of the rock. A mill test was had of 27 tons, which netted the prospectors a little over \$5,000, after paying \$130 per ton expenses.

In the same range of hills, beside the Little Giant are to be found the Buena Vista, Montrose, Eldorado, St. Helena, Caledonia and many more mines. The nearest point to enter this mining range from the road is opposite the Little Giant mine, seven miles from Battle Mountain. The part of the valley through which runs the road is covered with sage brush, and occasional beds of alkali. The valley is very broad, with the river on the further side, over against the base of Battle Mountain.

Leaving Battle Mountain station we pass along over the sage brush plateau for 14 miles without finding much of interest. The hills present the same general appearance on our left, while the opposite side of the valley is still marked by the hills which encircle the outer arc of the Big Bend.

INFANTRY soldiers are called by the Indians "heep walk men."

INDIANS call Major Powell's boats "water pones."

LONG trains of cars are called by the Indians "heep wagon, no hoss."

"HASH HOUSES"—roadside restaurants. Waiters are called "hash slingers."

TELEGRAPH operators are called "lightning shovers."

COIN (late Side Track).

A flag station, unimportant and uninteresting.

STONE HOUSE.

Nineteen miles from Battle Mountain. Elevation, 4,421 feet. This place was once an old trading post, strongly fortified against Indian attacks. The stone house stands at the foot of an abrupt hill, by the side of a spring of excellent water. The comb of the ridge is divided lengthwise by parallel ridges of rock, which form a deep chasm on the crest. From the stone house, a retreat to this gorge was easy, being only about 100 yards distant, and once there 20 men could successfully defend themselves against all the Indians in the country. A living spring in the gorge furnishes water, and there is but one inlet or outlet, and that is by the house at the foot of the hill. Soon after leaving the station, by looking away to the south six miles, can be seen another of the many "hot springs" which abound in the "Great Basin." Our description on page 142 will appropriately describe this one. We leave the old stone house and continue along the base of the hills, to the right the bottom lands are from 8 to 10 miles wide; the soil is sand and strong aikaline, covered with sage brush and grease wood. Thirteen miles and we arrive at

IRON POINT.

A flag station, unimportant to the traveler. Elevation, 4,375 feet. After leaving the station the bluffs draw close and high on each side, with the river on our right, with now and then a narrow strip of meadow land passing through and over deep cuts, and fills for three miles the canyon, which widens into a valley, and we reach

GOLCONDA.

eleven miles. Elevation 4,387 feet. This is a freight and telegraph station of considerable importance—in the prospective—it being in the Gold Run mining district, where rich silver mines have been discovered.

On the left hand side the Humboldt Range has been well prospected, with

favorable results. Three miles from this point is the Golconda mill—water power, eight stamps. This range is a part of the Reese River range, and contains, besides the Golconda, the Shepherdson, Cumberland, Home Ticket, Register, and many others. The district was discovered and organized in October, 1867.

On the north side of the river, east of this station, and distant only about 12 miles, some rich discoveries of silver and copper ore have recently been made, but the claims have not yet been "prospected" enough to establish their extent and value.

HOT SPRINGS.

Near Golconda are more of those curious springs which are found scattered over the Humboldt valley. Not purposing to describe more of them, we will give some general theories which we have heard advanced regarding them. Some contend that the water escapes from the regions of eternal fires, which are supposed to be ever burning in the centre of our little globe. Others assert that it is mineral in solution with the water which causes the heat. Again, some irreverent persons suggest that this part of the country is but the roof of a peculiar place, of which many have heard, though we have no good authority for saying they have ever been there.

Leaving Golconda we proceed on our way, while the same general features of landscape appear—a wide sage brush plain, with the meadows beyond. We pass

TULE,

a signal station, eleven miles west of Golconda. Elevation, 4,315 feet. Passing on down the valley we skirt the hills on our left, drawing still closer, in some places the spurs reaching to the track. On our left is an opening in the hills, from whence a canyon opens out near the road side. It is about five miles long, containing living springs.

On the plains, bacon is called "sow-belly, Indian tents," "wig wams;" lodges, "tepees," "wickeups."

TEAMSTERS on the plains call a meal a "grub pile."

Here were discovered the first mines in this part of Nevada. In the spring of '60, Mr. Barbeau, who was herding stock for Coperning, discovered the silver ore, and from this beginning, the prospecting was carried on with vigor. There have been located the Silver Chord, Cuba No. 1, White Pine, Starlight, Calavreas, California, Antelope, and others. The California works as high as \$300 per ton. The ores must be roasted before they can be worked to any advantage.

We are nearing the end of the division, and on this smooth road-bed it takes but a few minutes to bring us to the end of Humboldt and the beginning of Truckee divisions.

WINNEMUCCA.

A freight, passenger and eating station, of considerable importance, named for a chief of the Piutes, who formerly lived here. Elevation, 4,331 feet. Distance from Omaha, 1,451 miles; from San Francisco, 463. The old and new towns contain about 300 inhabitants. The old town of Winnemucca is situated on the low land directly fronting the station, about 300 yards distant. Though so near, it is hid from sight until you approach the bank and look over. It contains about 30 buildings of all sorts, including several stores and groceries. The *Humboldt Register*, a weekly democratic paper, is published here. The new town of Winnemucca is built along the railroad, and numbers about 30 buildings, including the company's shops. There are four hotels, chief of which is the Railroad Hotel.

The buildings are of wood, new, and like most of the railroad towns, there is more of the useful than the ornamental about them.

COMPANY'S SHOPS.

The shops consist of a 16-stall round-house, car shop, machine and blacksmith shop. They are built of wood, in the

It is said that in San Francisco the people can drink, and carry more without staggering, than in any city of the world.

most substantial manner, as are all the shops along the line.

STAGE LINES.

The Northwestern Stage Company runs daily lines of stages from this point to Boise City, via Paradise, Buffalo, Camp McDermott, Battle Creek, and Silver City. Distance to Boise, 265 miles.

FREIGHT

Is reshipped by fast freight lines from this point for Boise City, Idaho Territory, and various points in Montana.

MINES AND MILLS.

There is considerable mining going on around and near this place. A ten-stamp water mill, turbine wheel, has been erected on the opposite side of the river, at the foot of Paradise valley, but it is too far away for convenience to the mines of this locality, though much of the first rock worked was taken there. At present there are three mills in the Winnemucca district, all doing a good business. In the Winnemucca Range many lodes of silver-bearing ore have been located, among which are the Stars and Stripes, Union, Pride of the World, Accident and Vermouth. These veins yield a fair return for working, and the district promises to become one of great importance.

MUD LAKE.

About 50 miles west of Winnemucca, across the Humboldt, which here turns to the south, is one of those peculiar lakes found in the great basin of Nevada. The lake receives the waters of Quinn's river and several smaller tributaries during the wet season. It has no outlet, unless its connection with Pyramid and Winnemucca Lakes could be so designated. It is about 50 miles long by 20 wide, in high water; in summer it dwindles down to a marshy tract of land and a large stagnant pool. At the head of the lake is

BLACK ROCK,

A noted landmark in this part of the country. It is a bold, rocky headland,

rising about 1,800 feet above the lake, bleak, bare, and extending for several miles. It is an isolated peak in this desert waste, keeping solitary guard amid the surrounding desolation.

About twenty miles due south of Mud Lake is

PYRAMID LAKE,

Which receives the waters of Truckee river. It is about 30 miles long by 20 wide, during the wet seasons. The quality of the water is superior to that of Mud Lake, though the waters of all these lakes is more or less brackish. But a few miles to the east of Pyramid Lake lies

WINNEMUCCA LAKE,

Another stagnant pond, about 15 miles long by 10 wide. This lake is connected with Pyramid Lake by a small stream, and that in turn with Mud Lake, but only during high water, when the streams flowing into them cause them to spread far over the low sandy waste around them.

We now return to Winnemucca station, and resume our journey westward. The road bears away to the southward, skirting the low hills which extend from the Winnemucca Mountain toward Humboldt Lake. The general aspect of the country remains unchanged. After traversing 11 miles, we pass

ROSE CREEK.

Near a little ravine bearing that name. Elevation, 4,322 feet. The ravine lies to the left, among the hills, and is about three miles long. Where it enters the main valley, the bunch grass and patches of wild rye show that at one time the ground was moist here, but in the summer no water reaches the valley from this ravine. Ten miles west from this station, we arrive at

RASPBERRY CREEK.

A day telegraph station. Elevation, 4,327 feet. The creek from which this station derives its name rises in the hills about 6 miles south of the road, and affords but little water in the summer. Why this stream is called Raspberry

creek and the one we last passed Rose creek we never understood. We saw no indications of roses or raspberries at either place. The same monotonous aspect—sage-brush and now and then an alkali bed—greet the eye on the right hand, with the low brown hills on our left. We pass along, amid this apparent waste, until we reach

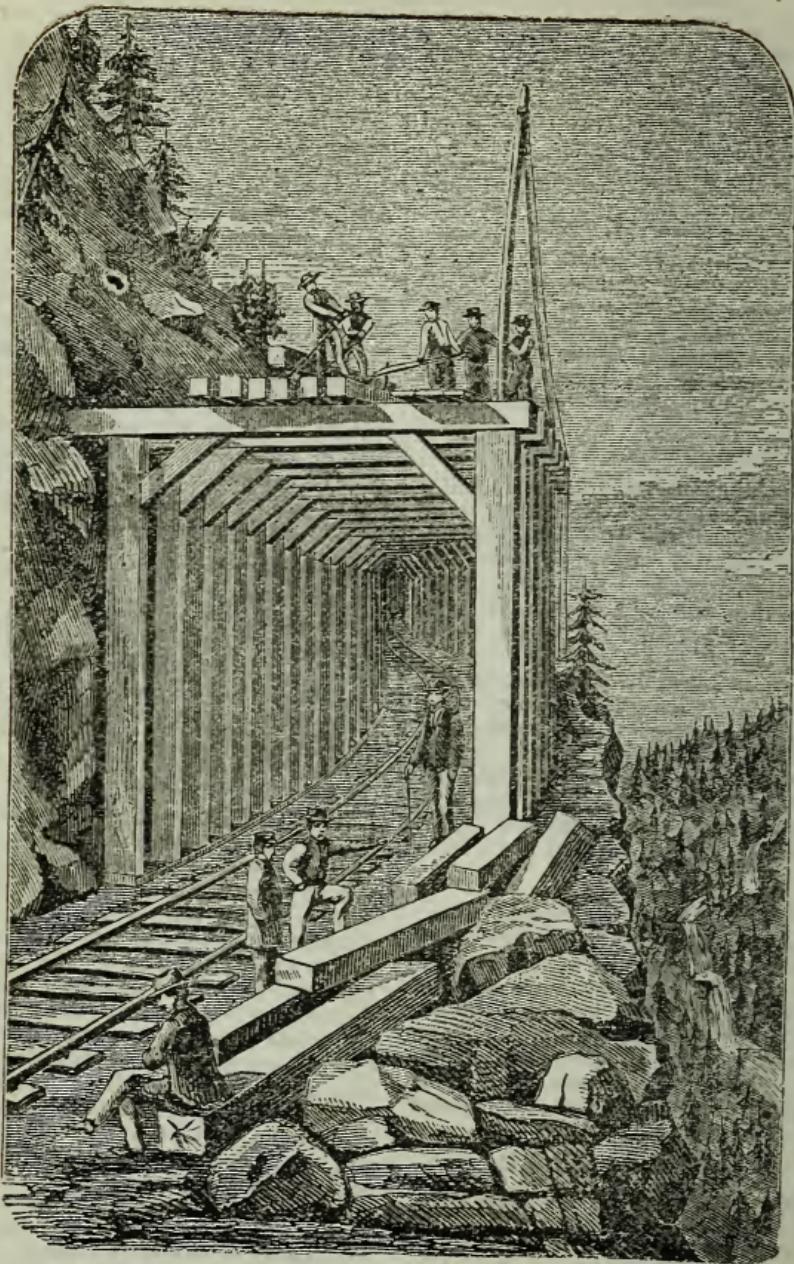
MILL CITY,

Eight miles to the westward of Raspberry Creek. Elevation, 4,228 feet. Stages leave this station on arrival of the cars for Unionville—a thrifty and promising Silver Mining town, 6 miles distant. We do not stop long at this station, not even to inquire whence it derives its name. After passing over 12 miles more of splendid road, we will stop at

HUMBOLDT

Long enough to obtain a drink of the clearest, coldest mountain water to be found along the road side. And if we have time we will look at the fountain and the garden of mine host, G. W. Meacham, of the Humboldt House, and probably sit down and enjoy a "square meal," which can always be obtained at this place, one of the regular eating stations. All trains stop 30 minutes.

It is worth the while of any tourist, who wishes to examine the wonders of nature, to stop here and remain for a few days, at least, for one day will not suffice. There are several reasons why the traveler should stop here, although to the careless passer-by the country appears devoid of interest. But the seeker after knowledge, who wishes to delve into nature's mysteries, can here find pleasant and profitable employment. The whole sum of man's existence does not consist in mines, mills, merchandise and money. There are other ways of employing the mind beside bending its energies to the accumulation of wealth; there is still another God, mightier than Mammon, worshipped by the few. Among the works of His hands these barren plains, brown hills and curious lakes—the seeker after knowledge can



Constructing Snow Sheds, Sierra Nevada Mountains, C. P. R. R. See page 192.

find ample opportunities to gratify his taste. The singular formation of the soil, the lava deposits of a by-gone age, the fossil remains and marine evidences of past submersion, and, above all else, the grand and unsolved system by which the waters that are continually pouring into this great basin are prevented from overflowing the low land around them, are objects worthy of the close attention and investigation of the scholar and philosopher. From this station the noted points of the country are easy of access, and beside that, this place is supplied with that great desideratum so rarely found in this country—pure, cold, health-giving mountain water.

Here one can observe the effects of irrigation on this sandy, sage-brush country. The garden at the station produces luxuriantly, vegetables, corn, and fruit trees, and yet but a short time has elapsed since it was covered with a rank growth of sage-brush.

About seven miles to the northeast may be seen Star Peak, the highest point in the Humboldt Range, on which the snow continues to hold its icy sway the whole year around. Two and one-half miles southeast are the Humboldt mines, five in number, gold and silver, which yield from \$250 to \$300 per ton. Five miles to the northwest are the Lanson Meadows, on which are cut immense quantities of as good grass as can be found in the country.

Leaving Humboldt station we pass over a more broken country, the low hills reaching farther out into the valley. Now we pass a SULPHUR MINE, about one mile west of the station on the right, close by the road. The mineral is said to be obtained in a nearly pure state and in unlimited quantities. We did not visit the mine—though it lies in plain view of the road—memories of early teachings forbidding it.

Leaving the sulphur mine and the ideas associated with it, we pass on until we arrive at

RYE PATCH,

An unimportant flag station, 11 miles

further on our journey. Elevation, 4,256 feet. The reader might consider, from the name, that some settler had tried the experiment of raising rye at this point, but the only attempt of that kind has been made by nature. On the moist ground around this place, patches of wild rye grow luxuriantly. To the left of the road, against the hill side, is another hot spring, over whose surface a cloud of vapor is generally floating. The medicinal qualities of the water are highly spoken of by those who never tried them, but we could learn of no reliable analysis of its properties. A cabin has been erected on the green slope below the spring, as evidence that the property has been appropriated.

MINES.

About ten miles from this station, silver-bearing quartz has been discovered. Several lodes have been located, and are now being worked. A mill has been erected at the foot of Humboldt Lake, and thither the ores are taken. As far as the veins have been worked, the returns have been very encouraging.

Leaving Rye Patch, we find a rather rough, uneven country for eleven miles further, when we find ourselves at

OREANA,

A day telegraph station. Elevation, 4,182 feet. To the west the long, gray line of the desert is seen, cheerless and desolate. We draw near the river again, and catch occasional glimpses of narrow, green meadows, with here and there a farm house by the river's side. Five miles from the last station we cross the Humboldt river on a Howe truss bridge, pausing at

BRIDGE STATION.

Elevation, 4,008 feet. The river—its current and volume materially reduced since we left it at the head of the Big Bend—winds away on our left until it reaches the lake, a few miles beyond. Among sage-brush knolls, beds of alkali, and sand-hills, we pass on for four miles, when we arrive at

LOVELOCK'S,

Near a ranch of that name. Elevation, 3,977 feet. At this point, we observe a comfortable farm-house on the borders of extensive meadows. Long ricks of hay, and trains loaded with the same article, attest the richness of the moist bottom land known as Lovelock's Ranch. The meadows grow narrow, and fade from sight as we pass over the higher land among the alkali beds. We are now fairly out on the

GREAT NEVADA DESERT,

Which occupies the largest portion of the Nevada Basin. In this section is Mud Lake, Pyramid Lake, Humboldt, Winnemucca and Carson Lakes, which receive the waters of several large rivers, and numerous small creeks. It forms a portion of that vast desert belt which constitutes the central area of the Nevada Basin. It consists of barren plains—destitute of wood and water—and low, broken hills, which afford but little wood, water or grass. It is a part of that belt which can be traced through the whole length of the State, from Oregon to Arizona, and far into the interior of that Territory. The Forty Mile Desert, and the barren country east of Walker's Lake, are part of this great division which extends southward, continued, by those desolate plains, to the east of Silver Peak, on which the unfortunate Buel party suffered so terribly in their attempt to reach the Colorado. Throughout this vast extent of territory the same characteristics are found—evidences of recent volcanic action: alkaline flats, basalt rocks, hot springs, and sandy wastes abounding in all portions of this great belt.

Although this desert is generally spoken of as a sandy waste, sand does not predominate in those portions that we visited. Sand hills and flats occur at intervals, but the main bed of the desert is lava and clay combined—one as destitute of the power of creating or supporting vegetable life as the other. The action of the elements has covered these clay and lava deposits with a coarse dust, resembling sand, which is

blown about and deposited in curious drifts and knolls by the wind. Where more of sand than clay is found, the sage-brush occasionally appears to have obtained a faint hold of life, and bravely tries to retain it.

We now continue our observations of the road, for while we have been describing the desert, the cars have reached

GRANITE POINT.

Eight miles from Lovelock's. Elevation, 3,917 feet. Passing on, we catch occasional glimpses of Humboldt Lake, which lies to the left of the road. We near its northern shore, and, seven miles from Granite Point, we stop at

BROWN'S.

A day telegraph station, where we can view the lake at our leisure. Elevation, 3,925 feet. The station is about midway of the northern shore, and affords a fine view of

HUMBOLDT LAKE.

This body of water is about 35 miles long by ten wide, and is in reality a widening of the Humboldt river, which, after coursing through from 300 to 350 miles of country, empties its waters into this basin. Through this basin the water flows to the plains beyond, by an outlet at the lower end of the lake, uniting with the waters of the sink of Carson Lake, which lies about ten miles distant. During the wet season, when the swollen rivers have overflowed the low lands around the lakes and united them, they form a very respectable sheet of water, about eighty miles or more in length, with a large river emptying its waters into each end, and for this vast volume of water there is no visible outlet.

Across the outlet of Humboldt Lake a dam has been erected, which has raised the water about six feet, completely obliterating the old emigrant road which passed close to the southern shore. The necessities of mining have at length utilized the waters of the lake, and now they are employed in turning the machinery of a quartz mill. In the

lower end of the lake is an island—a long narrow strip of land—which extends up the lake and near the northern shore. Before the dam was put in the outlet, this island was part of the main land. There are several varieties of fish in the lake, and an abundance of water-fowl during portions of the year.

Leaving Brown's station, we pass along the shore of the lake for a few miles when an intervening sand ridge hides it from our sight. After passing this ridge, and when about eight miles west of Brown's station, we obtain a fine view of the

SINK OF CARSON LAKE,

A small body of water lying a few miles north of the main Carson Lake, and connected with that and the Humboldt during the wet season.

CARSON LAKE

Lies directly south of Humboldt Lake, and is from 20 to 25 miles long, with a width of ten miles. In the winter, its waters cover considerable more area, the Sink and lake being one.

The Carson river empties into the southern end of the lake, discharging a large volume of water. What becomes of the vast body of water continually pouring into Humboldt and Carson Lakes, is a question which has been often asked, and as often answered differently. Many claim the existence of underground channels, and terrible stories are told of unfortunate people who have been drawn down and disappeared forever. These stories must be taken with much allowance. If under-ground channels exist, how happens it that the lakes, which are 10 to 15 miles apart in low water, are united during the winter floods? And how is it, that when the waters have subsided from these alkaline plains, that no opening for these channels are visible? The only rational theory for the escape of the water is by evaporation. Examine each little stream bed that you meet with; you find no water there in the summer, nor sink holes, yet in the winter their beds are

full until they reach the main river. The sun is so powerful on these lava plains in summer that the water evaporates as soon as it escapes from the cooling shadows of the hills. By actual experiment, it has been demonstrated that at Carson and Humboldt Lakes the evaporation of water is equal, in the summer, to six inches every 24 hours. In the winter when the atmosphere is more humid, evaporation is less, consequently the waters spread over a larger area.

CARSON RIVER,

Which gives its name to the lake, rises in the eastern slope of the Sierra Nevada Mountains, south of Lake Tahoe and opposite the head waters of the American river. From its source to its mouth is about 150 to 200 miles by the river's course. From its source its course is about due north for about 75 miles, when it turns to the east, and follows that direction until it enters the lake.

CARSON VALLEY.

Under the general name of Carson Valley the land bordering the river has long been celebrated as being one of the best farming sections in the State. The thriving towns of Carson City and Genoa are situated in the valley, though that portion around Carson City is frequently designated as Eagle valley. The upper portion, from Carson to the foot-hills, is very fertile and yields handsome crops of vegetables, though irrigation is necessary to insure a good yield. In some portions the small grains are successfully cultivated, and on the low lands an abundant crop of grass is produced. The valley is thickly settled, the arable land being mostly occupied. South and west of the head waters of Carson river, the head waters of

WALKER'S RIVER

Find their souree. The West Fork of Walker river rises within a few miles of the eastern branches of the Carson. The East Fork of Walker's river runs due north until joined by the West

Fork, when the course of the river is east for about forty miles, when it turns to the south, following that direction until it reaches Walker's Lake, about forty miles south of the sink of the Carson, having traversed in its tortuous course about 140 miles. In the valleys, which are found at intervals along the rivers, occasional spots of arable land are found, but as an agricultural country the valley of Walker's river does not stand pre-eminent.

WALKER'S LAKE.

This lake is about 45 miles long by 20 miles wide. Like all the lakes in the basin it has no outlet. The water is blackish and strongly impregnated with alkali. The general characteristics of the other lakes in the great basin belong to this also; the description of one embracing all points belonging to the others.

We now return to the road, which we left eleven miles east of

WHITE PLAINS.

Elevation, 3,893 feet. As indicated by the name, the plains immediately around the station are white with alkali, solid beds of which slope away to the sinks of Carson and Humboldt lakes. Near by is a large water tank, and we looked around in vain to discover the source from which it was supplied. A little cabin between the tank and lake revealed the mystery. A small engine is stationed there, which pumps the water from the "sink." No vegetation meets the eye when gazing on the vast expanse of dirty white alkali. The sun's rays seem to fall perpendicularly down on this barren scene, burning and withering, as though they would crush out any attempt which nature might make to introduce vegetable life. Seven miles of this inhospitable region having been passed, we arrive at

MIRAGE,

Elevated 3,199 feet. That curious phenomenon, the mirage (meerazh) is often witnessed on the desert. The toil-worn

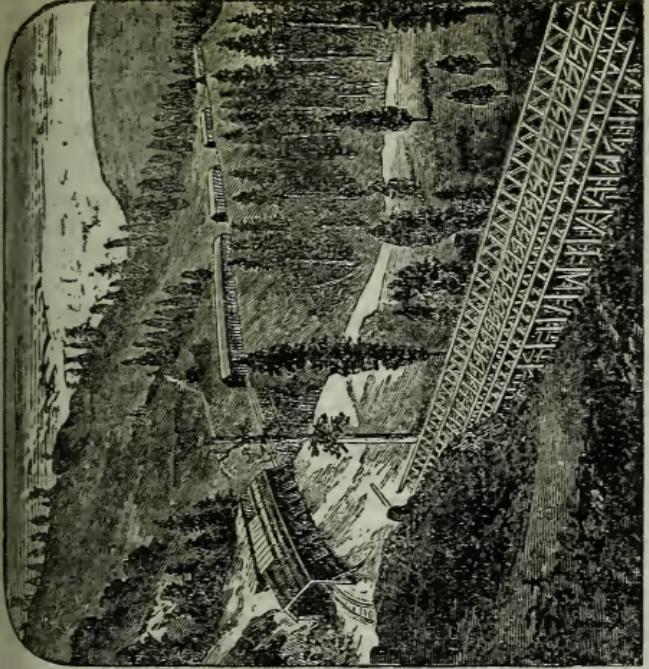
emigrant, when urging his weary team across the cheerless desert, has often had his heart lightened by the sight of clear running streams, waving trees and broad, green meadows, which appeared to be but a little distance away. Often has the unwary traveler turned aside from his true course and followed the vision for weary miles, only to learn that he had followed a phantom—a will-o'-the-wisp, or the creation of his own fancy. What causes these optical delusions no one can tell; at least we never heard of a satisfactory reason being given for the appearance of the phenomenon. We have seen the green fields, the leafy trees and the running water; we have seen them all near by, as bright and beautiful as though they really existed—where they appeared to—in the midst of desolation, and we have seen them vanish at our approach. Who knows how many luckless travelers have followed these visions, until overcome with thirst and heat they laid down to die on the burning sands, far from the cooling shade of the trees they might never reach; far from the music of running waters, which they might hear no more.

Still the same cheerless aspect—still the same hard, glittering light, reflected from the white beds of alkali and gray lava. Onward we go, scarcely giving a thought to those who, in the early days suffered so fearfully while crossing these plains. Eight miles west of Mirage we arrive at

HOT SPRINGS,

A telegraph station. Elevation, 4,070 feet. To the right of the road can be seen more of these escape pipes or safety valves for the discharge of the super-abundant steam inside of our little globe. And here we venture another of our private opinions regarding these bubbling, sputtering curiosities, which are found scattered over the great basin. Every one is aware that the bottom of the basin is much lower than the surrounding country, which fact gives stability to our new theory, which is this: that the earth is run by steam works,

SNOW COVERINGS AND BRIDGE NEAR CISCO.



HYDRAULIC MINING. (See pages 174 and 176.)



OLD SETTLERS on the Plains call Emigrants "Pioneers," "Patriots," "Bacon, Sowbelly," Indian Tennis, "Lodges," "Fedges," "Wick-slops," Ox drivers, "bullock-hackers;" mule drivers, "mule skimmers;" Utah Whisky "Valley Tan;" To be out of money, is "in the Cap;" "on the bed rock," etc.

THE INDIANS on the Plains call infantry soldiers "Heep-walk men; long trains of cars, "Bad Medicine Wagons," "Heep-Wagon—no Horse;" Einor will slip through a crack, while truth will get stuck in a doorway.

WHY are little birds melancholy in the morning? Because their little bills are all over *dew*.

"JOHN" IN OREGON.—In the Senate of Oregon, Oct. 21, 1870, Mr. Hendershott introduced the following bill.

Be it enacted by the Legislative Assembly of the State of Oregon:—

SECTION 1. No Chinaman shall be allowed to die in this State until he has paid ten dollars for a new pair of boots with which to kick the bucket.

SEC. 2. Any Chinaman dying under this act shall be buried six feet under ground.

SEC. 3. Any Chinaman who attempts to dig up another Chinaman's bones shall first procure a license from the Secretary of State, for which he shall pay four dollars.

SEC. 4. Any dead Chinaman who shall attempt to dig up his own bones without giving notice to the Secretary of State, shall be fined \$100.

SEC. 5. Any Chinaman who shall be born without bones for the purpose of wilfully and feloniously evading the provisions of this act, shall be fined \$500.

JOTTINGS BY THE WAY.

located in its centre, and the great basin being low and weak in the crust, afforded the easiest means of escape for the steam and hot water necessary to drive the machinery.

We find no change to note, unless it be that the beds of alkali are occasionally intermixed with brown patches of lava and sand. A few bunches of stunted sage-brush occasionally breaks the monotony of the scene. It is worthy of notice that this hardy shrub is never found growing singly and alone. The reason for it is evident. No single shrub could ever maintain an existence here. It must have help; consequently we find it in clumps, for mutual aid and protection. We now arrive at

DESERT,

Ten miles west of Hot Springs. Elevation, 4,017 feet. We will not tarry here, but pass on as rapidly as possible. We find the ground more broken as we proceed, lava ridges and deep gullies appearing at intervals. The gullies have been worn away through the hard crust (we cannot call it soil) until their smooth dry beds are several feet below the surface of the desert. The culverts put in the road bed at these places indicate that at times there is water in them, though now they are devoid of moisture. Seven miles of Desert, we pass

TWO MILE STATION,

Elevation, 4,115 feet. We pass on two miles further, down a heavy grade, and stop at

WADSWORTH,

Elevation, 4,072 feet. Distance from Omaha, 1,587 miles; from Sacramento, 189 miles. The town is situated about one mile east of Truckee river, and on the western border of the desert. It is one of the regular eating stations, and has an excellent hotel. The town is built of wood, and contains about 800 inhabitants. Aside from the Railroad House, there are two hotels, several lodging houses and restaurants. The water used here is obtained from Truckee river.

COMPANY'S SHOPS.

The division work-shops are located here, and consist of a round-house, car, machine and blacksmith shops. The round house has 20 stalls, and the other shops are of proportionate size. They furnish employment for about 200 men.

TRADE OF WADSWORTH.

Freight is re-shipped at this point for Austin, Fort Churchill, and a large scope of country south; also, for the mines at Unionville and Dun Glen.

MINES NEAR WADSWORTH.

Pine Grove Copper mines lie six miles south of the town. They attract little attention, that mineral not being much sought after. Ten miles south are the Desert Mines, which consist of gold-bearing quartz lodes. Some of the mines there are considered very rich. The Rye Patch, Dun Glen and Unionville Mines are also claimed as tributaries of Wadsworth.

We leave the town and pursue our way, crossing the fine Howe truss bridge which spans the

TRUCKEE RIVER.

This stream rises in Lakes Tahoe and Donner, which lie at the eastern base of the Sierras, about 80 miles distant. From its source in Lake Tahoe, the main branch runs north for about twelve miles, when, near Truckee City, it unites with Little Truckee, the outlet of Donner Lake, and turns to the east following that course until it reaches the Big Bend, thence north for about 25 miles, when it discharges its waters into Pyramid Lake.

TRUCKEE VALLEY.

The level lands bordering the Truckee consist mostly of gravelly upland, covered with sage-brush. It is claimed that they might be rendered productive by irrigation, and the experiment has been tried in a small way, but with no flattering result. The Truckee meadows, long noted as the rendezvous of the emigrants, who camped here to re-

cruit their teams after crossing the desert, are about all the farming lands to be found in this section. The upper portions of the valley—especially that which borders on Lake Tahoe—is excellent farming land. Between these two points,—the meadows and the lake—but little meadow-land is found, the valley being reduced to narrow strips of low land in the canyons and narrows, and broad, gravelly uplands in the more open country. But the traveler who passes over the road can judge for himself, for the road follows up the river to within about twelve miles of its source. Therefore, we proceed on our journey, arriving at

CLARK'S,

Fifteen miles from Wadsworth. Elevation, 4,263 feet. A side-track and freight station for the

TRUCKEE MEADOWS.

These meadows have an extent of about 10 miles in length by about two miles in width, enclosing considerable excellent grass land. Vegetables and small grains are successfully cultivated on portions of the moist land. The road follows along the river, now near its banks, then passing behind some low hill, we lose sight of it. Thus we wind in and out for 13 miles, when we arrive at

VISTA,

A side-track and freight station. Elevation, 4,403 feet. The country is very broken—brown, bare-looking hills being scattered around in seeming confusion. A broad, gravelly upland, covered with sage-brush, usurps the valley, and across this we speed until we reach

RENO,

Eight miles west of Vista. Elevation, 4,507 feet. Distance from Omaha, 1,620 miles; from San Francisco, 294 miles. This promises to become an important point, and is at present a lively place. The town contains about 1,000 inhabitants. It was named for General Reno,

who was killed in battle at South Mountain. Reno possesses an excellent little journal, the *Crescent*.

MINES AND MILLS.

The mines of the Pea Vine district lie conveniently near Reno. There are silver and gold-bearing quartz and copper mines in the district, the latter predominating. The Washoe U. C. G. and S. M. Co. works are near the town, affording excellent means by which to test and work the mines discovered in the neighborhood. The Glendale saw-mill, situated a few miles to the west of Reno, furnishes a very important portion of the lumber trade of the place. The town is just outside of the eastern limits of the timber, but logs are rafted down the stream to the mills during high water from the pineries along its banks.

Reno is the nearest point on the Central Pacific Railroad to Virginia City, and a railroad is now being constructed, broad-gauge, and at this time is completed to Steamboat Springs, 10 miles distant, with the present prospect of its being completed to Carson City during the summer of 1872, to connect with the road already completed to Virginia City. The distance between Reno and Virginia City by the old stage line was 21 miles; by rail, via Carson, 48 miles. The country for most of the way presents no serious obstacles in constructing the road.

Stage-lines now leave the end of the track, carrying passengers and express matters for Virginia City and Gold Hill, leaving on the arrival of the cars. A pony express leaves immediately on arrival of the trains, carrying the Wells, Fargo & Co.'s letter-express through ahead of the mail. When this pony express left Reno, the traveller could have observed that the mail express bags were thrown from the cars before the train had ceased its motion. By watching the proceeding still further he would see that they are transferred to the backs of stout horses, already bestrode by light, wiry riders. In a moment all is ready,

and away they dash under whip and spur to the next station, when, changing horses, they are off again. Three relays of horses were used in the trip.

Passengers and freight are now carried from Virginia City to Carson City, 22 miles, by the railroad, recently completed, from which place stages run to different mining camps regularly. We may have some readers who may wish to know something in regard to the Great Comstock Mine, which was the first silver mine discovered in the State of Nevada. The mines in this section are remarkable, and are conducted in the most extensive and complete manner imaginable. We will take the cars for

STEAMBOAT SPRINGS.

Arrived there, he will find several of these curious springs, within a short distance of the road. They are near each other, all having a common source, though different outlets, apparently. They are situated in an alkaline flat, devoid of vegetation, and are very hot, though the temperature varies in different springs. They are said to possess excellent medicinal qualities. At times they are quite active, emitting jets of water and clouds of steam—which at a distance resembles the blowing off of steam from a large boiler. The ground around them is scit and treacherous in places, as though it had been thrown up by the springs, and had not yet cooled or hardened. It is related that once upon a time, when a party of emigrants, who were toiling across the plains, arrived near these springs about camping time, they sent a man ahead—a Dutchman—to look out for a suitable place for camping—one where water and grass could be obtained. In his search the Dutchman discovered these springs, which happened to be quiet at the time, and knelt down to take a drink of the clear, nice-looking water. Just at that instant a jet of spray was thrown out and over the astonished Dutchman. Springing to his feet, he dashed away to the train, shouting at the top of his voice, "Drive on! drive on! h—ll is not five miles from this place!" the

innocent fellow firmly believing what he uttered.

The traveler will find the springs sufficiently interesting to repay him for the trouble of pausing here while on his way to

VIRGINIA CITY.

This famous city is situated due south of Reno, 21 miles, on the slope of Mt. Davidson, at an elevation of 6,200 feet. The town is well built, and contains many elegant public and private buildings. It contains a population of about 7,000, the larger portion of whom are engaged in mining in the vicinity.

NEWSPAPERS, CHURCHES AND SCHOOLS.

The *Daily Territorial Enterprise*—radical Republican—is published here, by J. T. Goodman, and is decidedly a good paper.

The religious and educational interests are well represented by several churches and good schools.

There are a number of hotels in the city, at which the traveler will find good accommodations.

Two miles from Virginia city is

GOLD HILL,

Also a flourishing mining town. It consists mostly of one main street, being built along a ravine. One can hardly tell when he leaves Virginia City and enters Gold Hill, they are so closely connected. The place contains about 5,000 inhabitants, and one newspaper, the *Gold Hill News*, published by P. Lynch, a well known journalist.

DAYTON,

Nine miles south of Virginia City, a thriving town of about 900 inhabitants.

The mines of Gold Hill are, as the name indicates, gold-bearing quartz, while those at Virginia City are silver.

THE GOLD MINES

Were discovered in 1857, by Joe Kirby and some others, who commenced mining in Six Mile Canyon—where the Ophir works now are—and continued working the place with indifferent suc-

cess until 1859. The first quartz claim was located by James Finney, better known as "old Virginia," on the 22d of February, 1858, in the Virginia mining district and on the "Virginia Croppings." The old prospector gave his name to the city, croppings and district. In June, 1859, rich deposits of silver ore were discovered by Peter O'Reilly and Patrick McLaughlin, on what is now the ground of the Ophir Mining Company. They were engaged in gold washing, and uncovered a rich vein of sulphuret of silver, when engaged in excavating a place wherein to catch a supply of water for their rockers. The discovery was made on ground claimed by Kirby and others. A Mr. Comstock was employed to purchase the claims of Kirby and those holding with him, hence Comstock's name was given to the lode.

COMSTOCK LODGE.

The length of this lode is about 25,000 feet, the out-croppings extending in a broad belt along the mountain side. It extends under Virginia City and Gold Hill, the ground on which these cities are built being all "honey-combed" or undermined, in fact, the whole mountain is a series of shafts, tunnels and caverns, from which the ore has been taken. The vein is broken and irregular at intervals along its length as far as traced, owing to the formation of the mountain. It is also very irregular in thickness; in some places the fissure ranges from 30 to as high as 200 feet in width, while at other points the walls come close together. The greatest variation in width occurs in the depth, from 400 to 600 feet from the surface. The principal silver ores of this lead are stephanite, vitreous silver ore, native silver and very rich galena. Pyrargyrite or ruby silver, horn silver and polybasite, are found in small quantities, together with iron and copper pyrites, zinc-blende, carbonate of lead, pyromorphite and native gold.

On this lode over 70 claims were located, of which we find 42 mentioned in the surveyor's report. The chief claims

are the Gould & Curry, Ophir (north mine), Ophir (south mine), Savage, Hale & Norcross, Chollar Potosi, Alpha, Imperial, Yellow Jacket, Kentuck, Belcher, Crown Point, Segregated Belcher, and Overman. The stock of these mines is to be found at the stock rooms in almost every city where mining stocks are made a specialty.

MILLS.

The number of mills in and around Gold Hill and Virginia, and at other points, which work on ore from this lead, is between 75 and 80. They are scattered around through several counties, including Storey (where the lode lies), Lyon, Washoe and Ormsby, from 30 to 40 of the number being in Storey county. The product of the Comstock Lode has been beyond that of any silver vein of which we have any record, furnishing the largest portion of the bullion shipped from the State. The total yield of bullion from Nevada was about \$18,000,000 to \$20,000,000 per year before White Pine was discovered.

REMARKABLE.

In three years the stock of the "Belcher" mine has advanced from \$1 per share to \$490, or \$5,096,000 for the mine. The "Crown Point" in 1870 sold for \$2 50; in December, 1872, for \$460, or \$5,520,000 for the mine.

WASHOE CITY,

Seventeen miles south of Reno, a flourishing town of about 700 inhabitants, lying nearly due west of Virginia City. Fifteen miles further south we find

CARSON CITY.

The capital of Nevada, which lies 32 miles south of Reno, and 16 miles southwest of Virginia City. It is situated in Eagle Valley, on the Carson river, at the foot of the eastern base of the Sierras, and contains about 3,000 inhabitants. It is the oldest town in the State; has a good many fine private and public buildings. The town is tastefully decorated with shade trees, and has an abundance of good water. The

schools and churches are in a flourishing condition. The United States Branch Mint of Nevada is located at this place. The newspaper interest is represented by the Carson *Appeal*, a daily paper, which has long been established here.

Carson City is situated in the center of the best farming land on Carson river, and the best in this part of the State. Carson is connected by stage with Genoa, Markleville, and Silver Mountain. The Carson City race-course gained some notoriety by Feyler riding fifty miles in two hours, for \$2,000.

GENOA CITY,

Fourteen miles southwest from Carson, is a thriving town of about 500 inhabitants, situated in a fine section of farming country on the Carson river, on the stage road to

MARKLEVILLE,

A mining town, in the State of California, on the eastern slope of the Sierras, containing about 600 inhabitants.

SILVER MOUNTAIN,

Another mining town, 14 miles from Silver Mountain, containing about 400 inhabitants. The country abounds in silver mines around these towns.

Leaving the mines and Carson City, we once more return to Reno and resume our journey west. Near by Reno the hills are loftier, nearer the river, and covered with pine forests, and as we enter the canyon we seem to have entered a cooler, pleasanter, and more invigorating atmosphere. The aroma of the spruce and pine is pleasant when compared with that of the alkaline plains. It is related of an Eastern lumberman, from "away down in Maine," who had been very sour and taciturn during the trip across the plains, refusing to be sociable with any of his fellow travelers, that when he entered within the shades of the forest, he straightened himself up in the cars for a moment, looked around, and exclaiming, "Thank God, I smell pitch once more," sank back in his seat and wept for joy.

Among these hills, with the river rolling along on our right, we pass along merrily, the dry, barren desert, forgotten in the new scenes opening to our view, until we reach

VERDI,

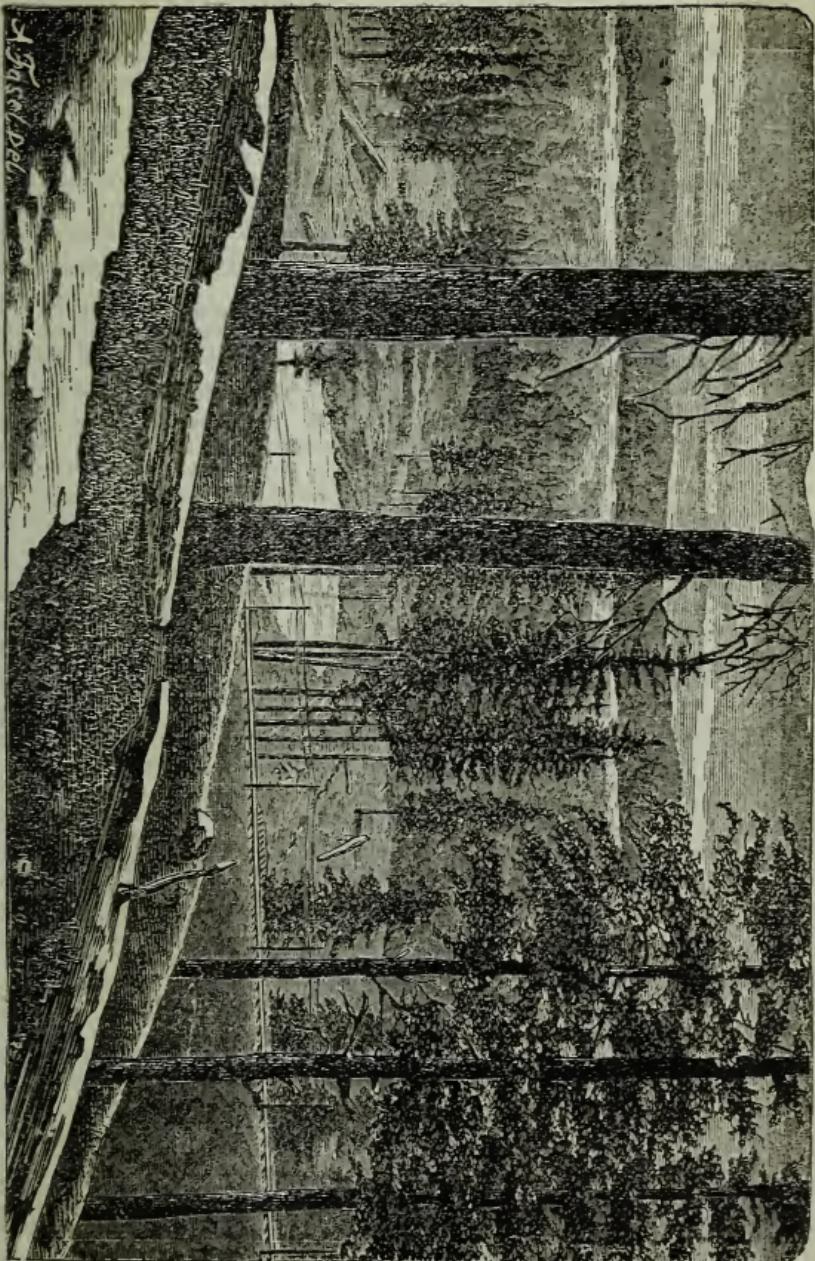
A station 11 miles west from Reno. Elevation, 4,927 feet. On, up the river, with its foaming current, now on our left, first on one side, then on the other, runs this beautiful stream, until we lose sight of it altogether. The road crosses and re-crosses it on fine Howe truss bridges, running as straight as the course of the mountains will permit. The mountains tower up on either hand, in places, sloping and covered with timber from base to summit, in others, precipitous, and covered with masses of black, broken rock. 'Tis a rough country, the canyon of the Truckee, possessing many grand and imposing features. Occasional strips of meadow land are seen, close to the river's edge, but too small and rocky to be of use, only as grazing land. Now, we cross the dividing line, and shout



as we enter California, a few miles east of

BOCA,

A station, 16 miles west of Verdi. Elevation, 5,533 feet. The lumber interest is well represented here, huge piles of ties, boards and timber lining the roadside. The river seems to be the means of transportation for the saw logs, immense numbers of them being scattered up and down the stream, with here and



Forest View near Dutch Flat, C. P. II. II.

there a party of lumbermen working them down the mills.

We pass on, through deep gravel cuts, along the base of black masses of rock, which tower far above us, past sloping pine-clad hills, for eight miles, to

TRUCKEE CITY.

Elevation, 5,845 feet. It is situated on the north bank of the Truckee River, in the midst of a heavily timbered region. The principal business of the place is lumbering, though an extensive freighting business is carried on with other points in the mountains. One can hardly get around the town for the pile of lumber, ties and wood which cover the ground in every direction. Some fine stores and a good hotel are the only buildings which can lay claim to size and finish corresponding with the growth and business of the place. The town is built of wooden buildings, mostly on the north side of the railroad. A narrow, crooked, muddy street separates the first row of buildings—the business portion of the town—from another string of carelessly arranged houses, which stretch along the foot of the mountains. The company have a very large depot and sheds here, which attest the heavy freight interest in the town. The very sharp roof of the buildings point out the fact that the snow falls deep and moist here, sufficiently so to crush in the roofs unless they are very sharp and strong. The town contains about 2,000 inhabitants, nearly all of whom are directly or indirectly connected with the lumber trade. (All the water of the Truckee River is required for mills and navigation—floating saw-logs.)

NEWSPAPERS, SCHOOLS AND CHURCHES.

The Truckee *Tribune*—Ferguson, publisher—a semi-weekly independent journal, takes care of the interests of the locality. The educational interests have been provided for, good schools being the rule, Nevada County, in which Truckee City is situated, being justly celebrated for her public schools. There are two good churches in town, a Methodist and a Roman Catholic edifice.

HOTELS.

There are three hotels in Truckee, the principal one being the Truckee House. The cars stop before the house thirty minutes, affording time for the traveller to obtain a good meal. This hotel is the headquarters of the tourists who visit this locality. This station is the end of the Truckee and the commencement of the

SACRAMENTO AND OREGON DIVISIONS.

The company have a 24-stall round house and the usual machine and repair shops of a division located here.

STAGE LINES—THEIR LENGTH.

Daily stages leave for Donner Lake, Lake Tahoe and Sierraville. Donner Lake line, Pollard, to the head of the lake, six miles; Lake Tahoe line, Campbell & Burke, 14 miles; Sierraville line, G. Richardson, 30 miles. Darling & Schneider, of Sierra City, have built a wagon road from Sierra City to Miltou, on the Henness Pass road. The length of grade required to connect with the Henness Pass road is five miles. The road connects Sierra City with Truckee, via the Henness Pass and Donner Lake wagon roads. Heretofore Sierra City has been compelled to get its supplies by way of Marysville and Downieville, a distance of 80 miles, or from Colfax, via Nevada City and Downieville, also about 80 miles. The new road connects them with the railroad within a distance of 32 miles—giving a distance of 48 miles in favor of the new route. It is also the nearest point for Downieville people to reach the railroad, as the latter place is but 16 miles from Sierra City.

Freight is re-shipped here for Donner and Tahoe lakes, Sierraville, and the various towns in Sierra Valley. There are some wholesale and retail houses here, which do a large business; the average monthly sales of merchandise in the town amount to about \$140,000.

CHINESE cheap labor—"Work for nothing and board yourself"—from the inhabitants of your neighbor's hen-roost.

VIRTUE and honor are very nice for Sunday wear, but too rare for every-day use.

POINTS OF INTEREST;

and how to reach them. We have spoken of the stage lines to the lakes, but of no other mode of reaching those places. Campbell, of the Truckee House, has fine turn-outs in his stables. Take one of these, and, with a guide, start out for

LAKE TAHOE,

or Bigler, as it is called on some of the official maps. Tahoe is an Indian name, signifying "big water," and is pronounced by the Indians "Tah-oo," while the "pale faces" pronounce it "Tahoe." It is located 12 miles south of Truckee. A splendid road affords one of the best and pleasantest drives to be found in the State. The road follows the river bank, under the shade of waving pines or across green meadows, until it reaches Tahoe City, at the foot of the lake. Here are excellent accommodations for travellers, a good hotel, boats, and a well-stocked stable, from whence you take a carriage (if you come by stage) and travel around the lake.

The latest attraction is a steamboat, placed upon the lake by B. Hollady, Jr., for the accommodation of pleasure seekers.

According to the survey of the State line Lake Tahoe lies in two States and five counties. The line between California and Nevada runs north and south, through the lake, until it reaches a certain point therein, when it changes to a course 17 degs. east of south. Thus the counties of Eldorado and Placer, in California, and Washoe, Ormsby and Douglas, in Nevada, all share in the waters of the Tahoe. Where the line was surveyed through the lake it is 1,700 feet deep.

Starting on our exploring tour we will commence with the eastern shore. The first object of interest met with is a relic of the palmy days of staging:

FRIDAY'S STATION, an old stage station, established by Burke in '59, on the Placerville and Tahoe stage road. Ten miles further on we come to the GLENBROOK HOUSE, a favorite resort for tourists. Four miles further on we come to THE CAVE, a cavern in the hillside, fully 100 feet above and overhanging the lake. There are

also two saw mills on the eastern shore of the lake. From Glenbrook House there is a fine road to Carson City.

Following around to the north end of the lake, and but a short distance away, are the celebrated HOT SPRINGS, lying just across the State line, in Nevada. Near them is a splendid spring of clear cold water, totally devoid of mineral taste. The next object which attracts our attention is CORNELIAN BAY, a beautiful indenture in the coast, with fine gravel bottom. Thus far there has been scarcely a point from which the descent to the water's edge is not smooth and easy.

Passing on around to the west side we return to

TAHOE CITY,

which contains two hotels, two stores, one saloon, two livery stables and several private dwellings. Four miles from Tahoe City is Saxon's saw mill, and two miles beyond this we come to more saw mills, and finally we reach SUGAR PINE POINT, a spur of mountains covered with a splendid forest of sugar pine, the most valuable lumber, for all uses, found on the Pacific coast. There are fine streams running into the lake on each side of the point. We now arrive at EMERALD BAY, a beautiful placid inlet, two miles long, which seems to hide itself among the pine-clad hills. It is not over 400 yards wide at its mouth, but widens to two miles inland, forming one of the prettiest land-locked harbors in the world. It is owned by Ben Holliday. At the south end of the lake is the site of the OLD LAKE HOUSE, burned a short time ago. At this point LAKE VALLEY CREEK enters the lake, having wound among the hills for several miles since it left the springs and snows which feed it. The VALLEY OF LAKE CREEK is one of the loveliest to be found among the Sierras. The whole valley, from the mountain slope to the lake, is one continual series of verdant meadows, dotted with milk ranches, where the choicest butter and cheese are manufactured. Around the lake the land is generally level for some distance back,

and covered with pine, fir and balsam timber, embracing at least 300 sections of as fine timbered land as the State affords. It is easy of access and handy to market, the logs being rafted down the lake to the Truckee, and thence down to any point on the railroad above Reno. So much for the general appearance of Lake Tahoe. To understand its beauties, one must go there and spend a short time. When once there, sailing on the beautiful lake, gazing far down its shining, pebbly bottom, hooking the sparkling trout that make the pole sway and bend in your hand like a willow wand, you will be in no hurry to leave. If you become tired of sailing and angling, take your gun and tramp into the hills and fill your game pouch with quail and grouse, and perhaps you may start up a deer or bear. He who cannot content himself for a time at Tahoe, could not be satisfied in any place on earth; he would need to find a new and better world.

We have now circled the lake and can judge of its dimensions, which are 22 miles in length and ten in width. We are loth to leave it, but we will return to Truckee, and thence to

DONNER LAKE.

This lovely little lakelet, the "Gem of the Sierras," lies two and a half miles northwest of Truckee. It is about three and a half miles long, with an average width of one mile, and an unknown depth—having been sounded 1,700 feet, and no bottom found. This and Lake Tahoe are undoubtedly the craters of old volcanoes, the mountains around them presenting unmistakable evidences of volcanic formation. The waters of both lakes are cold and clear as crystal, the bottom showing every pebble with great distinctness under water 50 feet deep. It is surrounded on three sides by towering mountains, covered with a heavy growth of fir, spruce and pine trees of immense size. Were it not for the occasional rattling of the cars, away up the mountain side, as they toil upward to the "Summit," and the few ca-

bins scattered here and there along the shore, one would fancy that he was in one of nature's secret retreats, where man had never ventured before. But when an immense log comes sweeping and crashing down the hill-side and plunges into the lake; he arrives at the conclusion that some one has been here before him, and has concluded to stay a while. A small stream which tumbles down the mountain side winds its way through the dense wood, and empties its ice-cold flood in the upper end or head of the lake, which rests against the foot of "Summit" Mountain. At this point, on a low, gravelly flat, shaded by giant pines, is the

LAKE HOUSE,

A favorite resort for tourists. The stage from Truckee runs to this place twice a day, on the arrival of the cars from east and west. From the Lake House, a very fine view of the railroad can be obtained. Within sight are four tunnels and several miles of snow-sheds, while behind and seemingly overhanging the road, the mountain's bald, bleak, bare, massive piles of granite tower far above, their precipitous sides seeming to bid defiance to the ravages of time. A fine road has been graded along the right-hand shore, from the station to the Lake House, forming a splendid drive. The "old emigrant road" skirts the foot of the lake (where the Donner party perished), and following up the stage road, climbs the "Summit" just beyond the long tunnel. Originally, it struck the divide at Summit Valley; from thence it followed the valley down for several miles, then struck across the crest-spurs, and followed the divide down from Emigrant Gap.

On the grade road, at the foot of the lake, is the

GRANT HOUSE,

Another resort for travelers and tourists. At this place, and also at the Lake House, are boats, fishing tackle, and all things needful for an excursion on the placid waters. A saw mill has been built at the foot of the lake, where a

great amount of lumber is manufactured. The logs are slid down the mountain sides in "shoots," or troughs made of large trees, into the lake, and then rafted down to the mill. On the west side of the lake the timber has not been disturbed, but sweeps down from the railroad to the water's edge in one dense unbroken forest.

From the foot of the lake issues a beautiful creek, which, after uniting with Coldstream, forms the Little Truckee river.

COLDSTREAM,

Which runs close by the lower end of the lake, is a clear, cold mountain stream, about fifteen miles long. It rises in the "Summit" Mountain, opposite Summit valley. Its waters are very cold, and are well stocked with fish. Some excellent grazing land borders the creek after it leaves the mountain's gorge. The foot of the lake is bordered with green meadows, covering an extent of several hundred acres of fine grazing land.

FISHING AND HUNTING.

In Donner and Tahoe Lakes is found the silver trout, which attains the weight of 20 pounds. There are many varieties of fish in these lakes, but this is most prized, most sought after by the angler. It is rare sport to bring to the water's edge one of these sleek-hide, sharp-biting fellows—to handle him delicately and daintily until he is safe landed, and then, when his remains are fried, baked, or broiled brown, it is not bad employment for the jaws to masticate the crisp, juicy morsels—it's not bad *jawing*. The water near the lake shore is fairly alive with white fish, dace, rock-fish, and several other varieties, the trout keeping in deeper water. There is no more favorite resort for the angler and hunter than these lakes and the surrounding mountains, where quail, grouse, deer and bear abound. These lakes are a favorite resort for the

"SAN FRANCISCO SCHOOLMARDS,"

Who annually visit this locality during the summer vacation. The steamboat and railroad companies generally pass

them over the route, and they pass a happy week at Tahoe and Donner Lakes. It is a pleasant sight to see these merry girls—they are *girls* when among the hills—romping, scrambling and wandering among the hills and along the lake shore, giving new life and animation to the scene. The gray old hills and mighty forests re-echo with their merry laughter, as they stroll around the lake, gathering flowers and mosses, or, perhaps, essaying their skill as anglers, to the great slaughter of the finny inhabitants of the lake, and the total demoralization of the hearts of their male companions.

It gives us great pleasure, too, to see "ye" male teacher threading his way amid the brush and bogs around the lake. With what an effort he lifts his apology for a leg over some stupid log, which *would* come right in his way. Overcome with the effort, he sits down on an ant's nest beside the log to rest, when along comes a shouting, rosy-faced bevy of girls, who leap over the log, frightening "ye master" nearly out of his wits—if he has any—he is very much "shocked," and tries to look dignified; *they cannot*, and would not if they could; neither do they try, but pass on in their wild chase after health and vigor.

Why will our city men be so disgustingly dignified and stupid when in the pursuit of pleasure? They cannot enjoy life and freedom from care, as can a woman; they must ever be "stuckup," or very *precise*, like hired mourners to a funeral.

THE DONNER PARTY.

Around this beautiful sheet of water—nestled so closely in the embrace of these mighty mountains, smiling and joyous in its matchless beauty, as though no dark sorrow had ever occurred on its shores, or its clear waters reflected back the wan and haggard face of starvation—is clustered the saddest of memories—a memory perpetuated by the name of the lake.

In the fall of '46, a party of emigrants, mostly from Illinois, arrived at Truckee river, worn and wasted from their long

and arduous journey. Among that party was a Mr. Donner, who, with his family, were seeking the rich bottom lands of the California rivers, the fame of which had reached them in their eastern home. At that time a few hardy pioneers had settled near Sutter's Fort, brought there by the returning trappers who, with wondrous tales of the fertility of the soil and the genial climate of California, had induced some of their friends to return with them and settle in this beautiful land. The Donner party, as it is generally called, was one of those parties, and under the guidance of a trapper, was journeying to this then almost unknown land. Arrived on the Truckee, the guide, who knew the danger threatening them, hurried them forward, that they might cross the dreaded Sierras ere the snows of winter should encompass them. Part of the train hurried forward, but Mr. Donner, who had a large lot of cattle, would not hurry. Despite all warnings, he loitered along until at last he reached the foot of Donner Lake, and encamped there for the night. The weather was growing cold, and the black and threatening sky betokened the coming storm. At Donner Lake, the road turned to the left in those days, following up Coldstream and crossing the Summit, near Summit Meadows, a very difficult and dangerous route in fair weather. The party who encamped at the lake that night numbered 16 souls, among whom was Mrs. Donner and her four children. During the night, the threatened storm burst over them in all its fury. The old pines swayed and bent before the blast which swept over the lake, bearing destruction and death on its snow-laden wings. The snow fell heavily and fast, as it can fall in these mountains. The frightened cattle broke from their guards and fled.

In the morning the terror-stricken emigrants beheld one vast expanse of snow, and the large white flakes falling thick and fast. Still there was hope. Some of the cattle and their horses remained. They could leave the wagons, and with the horses they might possibly

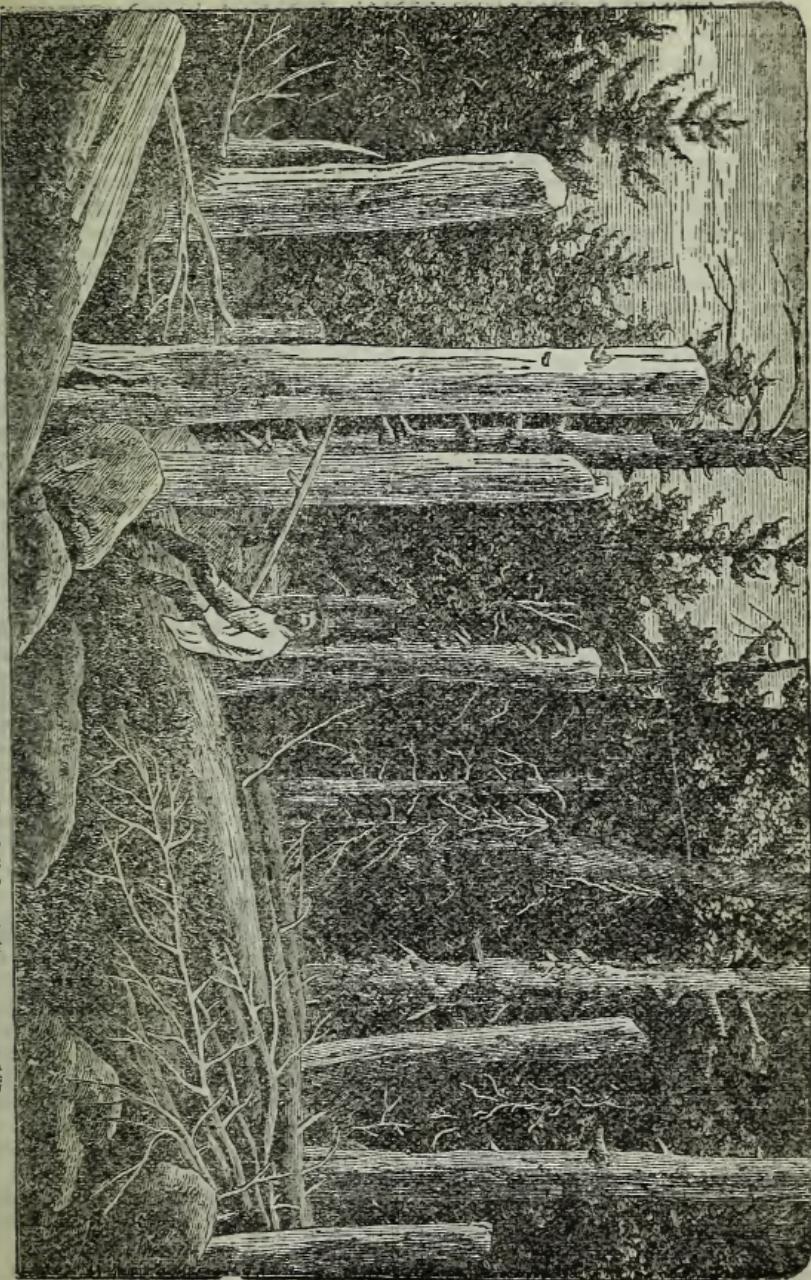
cross the mountains. But here arose another difficulty. Mr. Donner was unwell, and could not go; or, preferring to wait until the storm subsided,—and Mrs. Donner, like a true woman, refused to leave her husband.

The balance of the party—with the exception of one, a German, who decided to stay with the family—placed the children on the horses, and bade Mr. and Mrs. Donner a *last* good-by; and after a long and perilous battle with the storm, they succeeded in crossing the mountains and reaching the valleys, where the danger was at an end. The storm continued, almost without intermission, for several weeks, and those who had crossed the Summit knew that an attempt to reach the imprisoned party would be futile, worse than folly, until the spring sun should melt away the icy barrier.

Of the long and dreary winter passed by these three persons, who shall tell? The tall stumps (see illustration) standing near where stood the cabin attest the depth of snow. Some of them are 20 feet in height.

Early in the spring a party of brave men, led by Claude Cheney, started from the valley to bring out the prisoners, expecting to find them alive and well, for it was supposed that they had provisions enough to last them through the winter, but it seems they were mistaken.

After a desperate effort, which required weeks of toil and exposure, the party succeeded in scaling the mountains and came to the camp of the Donners. What a sight met the first glance—before the fire sat the Dutchman, holding, in a vice-like grasp, a roasted arm and hand, which he was greedily eating. With a wild and frightened look he sprang to his feet and confronted the new comers, holding on to the arm as though he feared they would deprive him of his repast. The remains of the arm were taken from him by main force, and the maniac secured. The remains of Mr. Donner were found, and with those of his faithful wife, given such burial as the circumstances would permit, and



Starvation Camp.—Stumps cut by the Donner Lake Party, 1846. For full description see page 107.
From photograph by Thos. Houseworth & Co., San Francisco.

taking the survivor with them, returned to the valley.

The German recovered, and still lives. His story is that soon after the party left Mr. Donner died, and was buried in the snow. The last of the cattle escaped, leaving but little food; and when that was exhausted, Mrs. Donner died. Many dark suspicions of foul play on the part of the only survivor has been circulated, but whether they are correct will never be known, until the final unraveling of time's dark mysteries.

SIERRA VALLEY

Lies about 30 miles from Truckee City, among the Sierras. It is about 40 miles long, with a width of from five to seven miles. It is fertile, thickly settled, and taken in connection with some other mountain valleys, might be termed the Orange county of California, from the quantity and quality of butter and cheese manufactured there. In the mountain valleys and on the table-lands the best butter and cheese found in the State are manufactured—the low valleys being too warm, and the grasses and water not so good as found here. In Sierra, and many other mountain valleys, good crops of grain and vegetables are grown in favorable seasons, but the surest and most profitable business is dairying. The flourishing town of Royalton is situated in this valley.

HONEY LAKE,

An almost circular sheet of water, about 10 miles in diameter, lies about 50 miles north of Truckee City. Willow creek and Susan creek enter it at the north, while Lone Valley creek empties its waters into the southern portion of the lake. Some fine meadow and grazing land is found in the valleys bordering these streams, which has been occupied by settlers, and converted into flourishing farms.

Susanville, the principal town in the valley, is situated north of the lake. It is connected by stage with Reno, Nevada, and Oroville, California.

We now take leave of Truckee City and its surroundings, and prepare to cross the "Summit of the Sierras," four-

teen miles distant. With two locomotives leading, we cross the North Fork or Little Truckee on a single-span Howe truss bridge. We leave it behind us, and make directly across the broken land bordering the lake meadows for the foot of the Sierras. Now, we skirt along the hill-side, with the beautiful Coldstream (a branch of the North Fork), on our right, winding through the grassy valley and among the waving pines.

Eleven miles from Truckee we arrive at

STRONG'S CANON.

Now, we bend around the southern end of the valley, which borders the lake, and crossing Coldstream, we commence the ascent of the mountain. Now, we skirt the eastern base, rising higher and higher until Donner Lake, the loveliest gem in the Sierras, is far below us, looking like a lake of silver set in the shadows of green forests and brown mountains. Up still, the long black line, bent around and seeming stealing away in the same direction in which we are moving, though far below us, points out the winding course we have followed. Up, still up, higher and higher, and now we enter the long line of snow-sheds, leading to the first tunnel. We toil on, rushing through the snow-sheds, plunging into the tunnel, the locomotives snorting an angry defiance as we enter these gloomy rock-bound chambers.

SUMMIT STATION.

Seven thousand and seventeen feet above the level of the sea. Distance from Omaha, 1,669 miles; from Sacramento, 105 miles. We are not on the highest lands of the Sierra by any means, for bleak and bare of verdure rise the granite peaks around us. Piles of granite, their weather-stained and moss-clad sides glistening in the morning sun, rise between us and the "western shore," hiding from our sight the vast expanse of plain that we know lies between us and our destination. Scattering groups of hardy fir and spruce line the mountain gorges, where rest the everlasting snows. To the east rises Rattlesnake Mountain, its rocky crest

towering among the clouds, seeming but one immense mass of solid granite, with here and there a bunch of stunted bushes growing among the clefts and chasms which traverse it.

We are on the dividing ridge which separates the head waters of several mountain rivers, which, by different and tortuous courses, find at last the same common receptacle for their snow-fed waters—the Sacramento River. Close to our right, far down in that fir-clad gorge, the waters of the South Yuba leap and dance along, amid dense and gloomy forests, and over almost countless rapids, cascades and waterfalls. This stream heads against and far up the Summit, one branch crossing the road at the next station, Cascade. As we pass along the divide, after passing Cisco, we shall see the head waters of Bear River, lying between the divide and the Yuba, which winds away beyond our sight behind another mountain ridge. Farther on still and we lose sight of Bear River to find the American River on our left. These streams reach the same ending—the Sacramento River—but far apart, where they mingle with that stream. There is no grander scenery in the Sierras—of towering mountains, deep gorges, lofty precipices, sparkling waterfalls and crystal lakes—than abound within an easy distance of this place. The tourist can find scenes of the deepest interest and grandest beauty; the scholar and philosopher objects of rare value for scientific investigation; the hunter and angler can find an almost unlimited field for their amusement—the former in the gorges of the mountains, where the timid deer and fierce grizzly bear make their home; the latter among the mountain lakes and streams, where the speckled trout leaps in its joyous freedom, while around all is the music of snow-fed mountain torrent and mountain breeze, and over all is the clear, blue sky of our sunny clime, tempered and softened by the shadows of the everlasting hills. There is life, health and vigor on every hand, if one will but embrace it.

THE TUNNELS AND SNOW SHEDS.

From the time when the road enters the crests of the "Summit," it passes through a succession of tunnels and snow sheds (see first snow shed illustration), so closely connected that the traveller can hardly tell when the cars enter or leave a tunnel. The Summit tunnel, the longest of the number, is 1,659 feet long, the others ranging from 100 to 870 feet in length.

Fires sometimes cause damage to sheds and road, but seldom any delay to the trains, as the company have materials of all kinds on hand for any emergency, and with their swarm of men can replace everything almost as quick as it is destroyed; but, to further protect the snow sheds and bridges from fire, and the more effectually to extinguish them, the Railroad Company have stationed at the Summit the locomotive Grey Eagle (with steam always up and ready to answer a summons), with a force pump of large capacity, supplied with steam from the engine. Attached to the locomotive are eight water cars, the tanks on which are connected with each other and with the tender of the engine, so that the supply of water will always be sufficient to check any ordinary fire.

The snow sheds are solid structures, built of sawed and round timber, completely roofing in the road for many miles. When the road was completed there were 23 miles of shed built, at an actual cost of \$10,000 per mile. With the additions since made the line reaches about 45 miles, which includes the whole length of the deep snow line on the dividing ridge. When we consider that along the summit the snow falls from 16 to 20 feet deep during a wet winter, we can imagine the necessity and importance of these structures. By this means the track is as clear from snow in the winter as in the valleys. The mighty avalanches which sweep down the mountain sides in the spring, bearing everything before them, pass over the sloping roofs of the sheds and plunge into the chasms below, while beneath the rushing mass the cars glide smoothly along, the passengers hardly knowing but what they are in the midst of an enormous tunnel.

Where the road lies clear on the divide or level land, the sheds have sharp roofs, like those of any building calculated to withstand a great weight of snow. But where the road is built against the side of these bare peaks, the roof of the shed can have but one slope, and that must reach the mountain side, to enable the "snow-slides" to cross the road without doing harm to that or the passing trains. (See second snow-shed illustration.)

Leaving the Summit, we pass on, through snow-sheds and tunnels, around the base of towering peaks, anon over the bare ridge with an unbroken view on either hand, then amid grand old forest trees until we reach

CASCADE,

Six miles west of Summit. Elevation, 6,519 feet. Here we cross one of the branches of the Yuba, which goes leaping down the rocks in a shower of spray during the summer, but in the winter the chasm shows but a bed of snow and ice. While passing along, the traveler will observe to the west a broad grassy meadow, dotted with trees, and lying between two lofty mountains. This beautiful plain is called

SUMMIT VALLEY,

It will repay the traveler to spend a day here, in one of the loftiest of the Sierra valleys. It is covered with a luxuriant growth of grass, affording pasturage for large bands of cattle, during the summer. It is all occupied by dairymen and stockraisers, at whose comfortable dwellings the tourist will find a hearty welcome. It is a delightful summer retreat—a favorite resort for those who prefer the mountains with their cool breezes and pure water. The valley is watered by many springs and snow-fed rivulets, whose waters flow to the American river.

This valley is becoming noted in a business point of view, as well as being a place of summer resort. It is becoming celebrated as a meat packing station, it having been demonstrated that pork

and beef can be successfully cured here during any portion of the year. In most portions of the State, and especially so on the plains, it is extremely difficult, generally impossible, to cure meat by the usual process of pickling. The hams, which are cured in the low lands, are generally "pumped," and then they keep but a short time. But here meat can be put up in brine and thoroughly cured at any time. This fact, together with its proximity to the railroad, will have the effect of creating an extensive business at this point.

SODA SPRINGS.

These springs are found near the foot of Summit Valley, their waters uniting with others, forming the head waters of the American river. The springs are very large and numerous. The water is pronounced to be the best medicinal water in the State. It is a delightful drink, cool and sparkling, possessing the taste of the best quality of manufactured soda water. The larger of the springs have been improved, and great quantities of the water is now bottled and shipped to all parts of the State. Near the Soda Springs are others, the waters of which are devoid of mineral or aciduous taste, and cold as ice.

"'Tis a singular place," the miner said, when telling his friends of his discovery. "'Tis a singular place; dog on my skin if it ain't, whar sweet and sour water comes oute'n the same hole, one bilin' hot, to look at it, but cold as ice; the other looking warm and quiet, but cold enough to freeze a feller to death." We leave the valley and Hot Springs with the remark that at Tinker's Station, or

TAMARACK,

Is the best point at which to leave the cars for a visit to the valley. This station is four miles west of the cascades, and has little importance, cars stopping only on signal. Elevation, 6,191 feet.

Among the hills, through snow-sheds and tunnels, we speed on for three miles, when we arrive at

CISCO,

An eating station. Elevation, 5,939 feet, where good meals can be obtained. There is quite a little town of sharp-roofed wooden houses here, containing about 400 inhabitants. At one time it was quite an important place, being the "terminus" during the time occupied in tunneling through the summit. A turn table and small shops were erected, but they are little used now, as the road has passed them.

Leaving Cisco, we pass on the down grade carrying us along rapidly and easily, without the help of the locomotives. We feel refreshed by the mountain breeze, and when the snow-sheds have an interval between them, we catch glimpses of the streams we have mentioned, the Bear and Yuba rivers away to our right and far, far below us. Eight miles west from Cisco, we reach

EMIGRANT GAP,

The point where the old emigrant road crossed the divide, and followed down the ridges to the valley of the Sacramento. The emigrants passed *over* the "gap," we pass *under* it, making a slight difference in elevation between the two roads, as well as a difference in the mode of traveling. We have seen the last of the old emigrant road that we have followed so far. No more will the weary emigrant toil over the long and weary journey. Space is annihilated, and the tireless iron horse will henceforth haul an iron wagon over an iron road, landing the emigrant fresh and hearty, after a week's ride, in the sunny land of his adoption.

Passing on amid the grand old pines, leaving the summit peaks behind, we turn up Blue canyon, the road bed on the opposite bank apparently running parallel with the one we are traversing. We swing around the head of the canyon, past saw mills, and lumber side-tracks, until we reach the station of

BLUE CANYON,

Six miles from Cisco. Elevation, 4,677 feet. A freight and lumber station, for

the accommodation of the mills in the vicinity. Immense quantities of lumber are manufactured in these mountains, near the line of the road, Sacramento affording a ready market for the article. Before the railroad reached these mountains, the lumber interest of this section was of little value, there being only a local demand, which hardly paid for building mills and keeping teams. The mines were then the only market—the cost of freight to the valleys forbidding competition with the Puget Sound lumber trade, or with mills situated so much nearer the agricultural districts. Now the lumber can be sent to the valleys, and sold as cheap as any in a market rarely overstocked, for the one item of lumber forms one of the staple market articles, ruling at more regular prices, and being in better demand, than any other article of trade, if we except wheat.

Passing on, we leave Blue Canyon, its sparkling waters and giant pines, speeding along around the hill sides, past

CHINA RANCH,

An unimportant station, two miles west of Blue Canyon, with an elevation of 4,410 feet. Soon after leaving, to our left—on south side—can be seen the

GREAT AMERICAN CANYON,

One of the grandest gorges in the Sierra Mountains. [See Illustration.] The river is here compressed between two walls, 2,000 feet high, and so near perpendicular that we can stand on the brink of the cliff and look directly down on the foaming waters below. The canyon is about two miles long, and so precipitous are its sides, which are washed by the torrent, that it has been found impossible to ascend the stream through the gorge even on foot.

Five miles beyond Shady Run, we stop for a few minutes at

ALTA,

A freight and passenger station. Alta looks old and weather-beaten, and its half-dozen board houses, with sharp roofs, look as though there was little less

than a century between the present and the time when they were ushered into existence, like its namesake in San Francisco, after which it was named.

Two miles further on and we stop at

DUTCH FLAT,

Commonly called *German Level*, the station for the town of that name. Elevation, 3,403 feet. The town of Dutch Flat is situated in a hollow, near by and to the right of the road, a portion of it being in plain view. The town contains many good buildings, churches, schools, and hotels. Population, about 2,000. One feature of this town is worth noting, and worthy of commendation—the beautiful gardens and fine orchards which ornament almost every house. In almost all of the mountain towns, in fact in all of the older mining towns, the scene is reproduced, while many of the valley towns are bare of vines, flowers or fruit trees. The miner's cabin has its garden and fruit trees attached, if water can be had for irrigation, while half of the farm houses have neither fruit trees, shrubs, flowers or gardens around them.

STAGE LINE, FREIGHT, &c.

G. H. Colby runs a daily coach to Nevada City, 16½ miles distant, via Little York, You Bet and Red Dog. Freight is left here for these places and the surrounding mines.

LITTLE YORK,

A mining town, three miles northwest of Dutch Flat, contains about 500 inhabitants.

YOU BET,

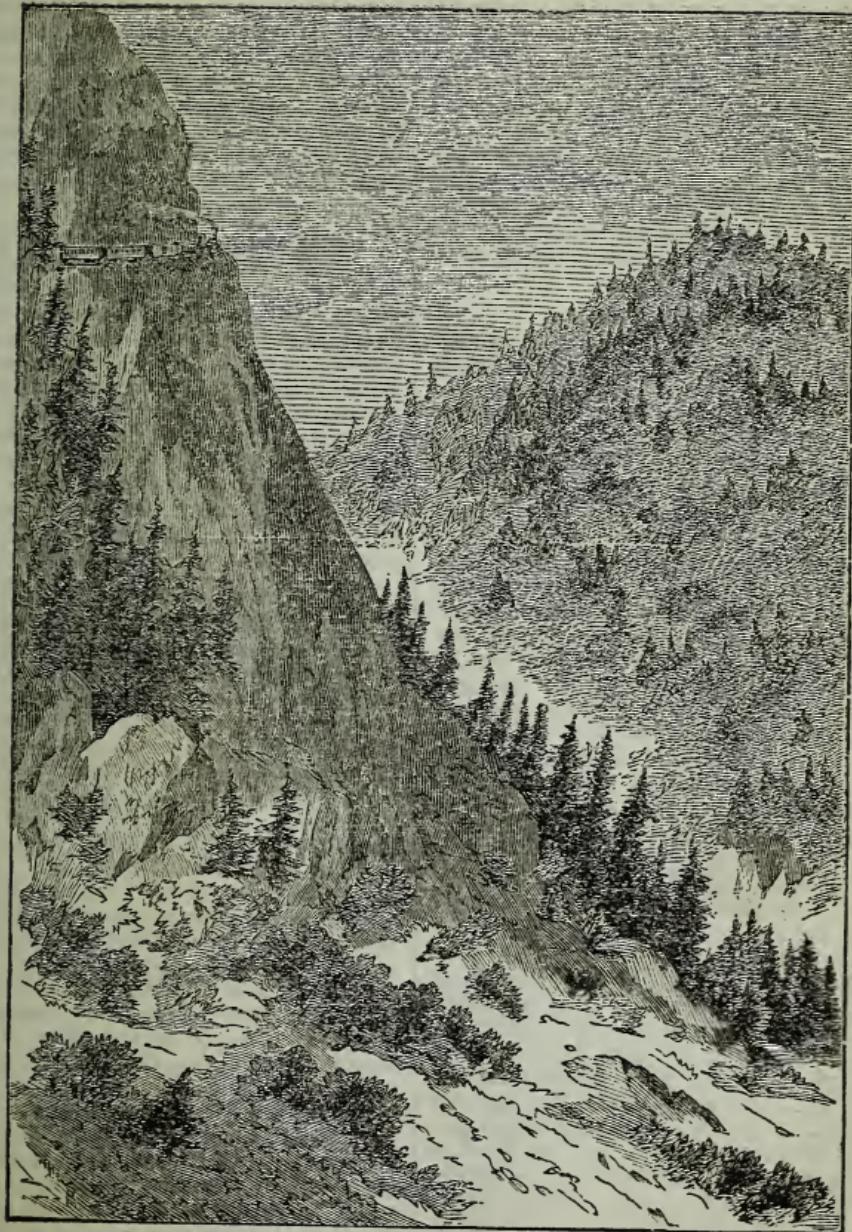
Six miles from Little York, also a mining town, about the size of Little York.

RED DOG,

Seven and a half miles from You Bet, still another small mining town. These towns are situated on what is called the Blue Lead, the best large placer

mining district in the State. The traveler will see the evidences of the vast labor performed here while standing on the platform of the cars at Alta, Dutch Flat or Gold Run stations. The Blue Lead extends from below Gold Run, through the length of Nevada, on, into and through a portion of Sierra county. It is supposed to be the bed of some ancient river which was much larger than any of the existing mountain streams. The course of this old river was nearly at right angles with that followed by the Yuba and other streams which run across it. The channel is from one to five miles wide in places; at least the gravel hills, which are supposed to cover the bed, extend for that distance across the range. Many of these gravel hills are from 100 to 500 feet high, covered with pine trees from two to six feet in diameter. Petrified trees, oak and pine, and other woods, such as manzanita, mountain mahogany and maple are found in the bed of the river, showing that the same varieties of wood existed when this great change was wrought, as are now growing on the adjacent hillsides.

The traveler will observe by the roadside, mining ditches and flumes, carrying a large and rapid stream of clear cold water. These ditches extend for many miles, tapping the rivers near their sources—near the regions of perpetual snow. By this means the water is conveyed over the tops of the hills, whence it is carried to any claim below it. The long, high and narrow flume, called a "telegraph," carries the water from the ditch, as nearly level as possible, over the claim to be worked. To the "telegraph" is attached a hose with an iron pipe, or nozzle, through which the water rushes with great velocity. When directed against a gravel bank, it cuts and tears it down, washing the dirt thoroughly, at a rate astonishing to those unacquainted with hydraulic mining. The water carries rocks, dirt and sand through the tail race and into the long flumes where the riffles for collecting the gold are placed. Miles and



Rounding Cape Horn. (See page 176.)

miles of the flumes have been built at an enormous expense to save the gold carried away in the tailings.

Around Little York and You Bet, the lead is mixed too much with cement to mine in this manner with profit, hence mills have been erected where the cement is worked in the same manner as quartz rock, crushed and then amalgamated. But we cannot linger here, we must go on with the train; which, even now, is starting.

GOLD RUN,

Two miles beyond Dutch Flat; elevation 3,206 feet. A small mining town, containing about 200 inhabitants. Around it you can see on every hand the miner's work. Long flume beds, which carries off the washed gravel and retain the gold; long and large ditches full of ice-cold water, which, directed by skillful hands, are fast tearing down the mountains and sending the washed debris to fill the river beds in the plains below. There are a set of "pipes" busy in playing against the hillside, which often comes down in acres. All is life, energy and activity. We don't see many children peeping out of those cabins, for they are not so plenty in the mining districts as in Salt Lake. But we do see nearly all of the cabins surrounded with little gardens and orchards, which produce the finest of fruit.

Leaving Gold Run, we descend the mountain rapidly. Here and there we see Chinese cabins, and by them huge piles of soap root, and bales of the prepared article. It will be transported to the factories, where it is manufactured into mattresses. This root grows in profusion in the hard red soil of the mountains. On, amid mining claims, by the side of large ditches, through the deep gravel cuts, and along the grassy hillsides, until, on the left, we catch a glimpse of the North Fork of the American river, foaming and dashing along in a narrow gorge full 1,500 feet beneath us. Farther on we see the North Fork of the North Fork, dashing down the steep mountain at right angles with the

other, leaping from waterfall to waterfall, its sparkling current resembling an airy chain of dancing sunbeams, as it hastens on to unite with the main stream. Now we lose sight of it, while it passes through one of those grand canyons only to be met with in these mountains. Now we pass

C. H. MILLS,

A signal station, six miles from Gold Run. Elevation, 2,691 feet. We pass steadily on, leaving the scene behind, when suddenly it breaks on our view again, and this time right under us as it seems, but much farther down below us. It seems as though we could jump from the platform into the river, so close are we to the brink of the precipice; steadily on goes the long train, while far below us the waters dance along, the river looking like a winding thread of silver laid in the bottom of the chasm, 2,500 feet below us. This is

CAPE HORN.

Timid ladies will draw back with a shudder, one look into the awful chasm being sufficient to unsettle their nerves and deprive them of the wish to linger near the grandest scene on the whole line of the trans-continental railroad. Now look farther down the river and behold that black speck spanning the silver line. That is the turnpike bridge on the road to Iowa Hill, though it looks no larger than a foot plank. Now we turn sharp around to our right, where the towering masses of rock have been cut down, affording a road-bed, where a few years ago the savage could not make a foot trail. Far above us they rear their black crests, towering away, as it were, to the clouds, their long shadows falling far across the lovely little valley now lying on our left, and a thousand feet below us still. We have lost sight of the river, and are following the mountain side, looking for a place where we cross this valley and reach the road-bed on the opposite side, which we can see runs parallel with us. We have found it, and turning to our left, we cross the valley on a trestle

bridge 113 feet high and 878 feet long, where it crosses the lowest part of the valley. Gradually the height grows less, until it is reduced, at the end of 600 feet, enough to admit of an embankment being raised to meet it. On, over the embankment which curves around to the left, and now we are on the solid hill side, and running along opposite the road by which we passed up the valley. We now have our last and best look at the bold bluff.

The best view of this noted place is obtained when going east, or from the river below. (See illustration.) Viewed from the river, the passing train looks like some huge monster winding around the bluff, bold point, puffing and blowing with its herculean labors, or screaming angry notes of defiance, or perhaps of ultimate triumph at the obstacles overcome. When the road was in course of construction, the groups of Chinese laborers on the bluffs looked almost like swarms of ants, when viewed from the river. Years ago, the cunning savage could find only a very round-about trail by which to ascend the point, where now the genius and energy of the pale-face has laid a broad and safe road whereon the iron steed carries its living freight swiftly and safely on their way to and from ocean to ocean.

When the road-bed was constructed around this point, the men who broke the first standing ground were held by ropes until firm foot-holds could be excavated in the rocky sides of the precipitous bluffs.

COLFAX.

While we have been talking, the cars have arrived at this place, five miles west of C. H. Mill's station. Elevation, 2,421 feet. This is a regular eating station, and an excellent table will be found at the Railroad House, kept by Curley & More. The company has a large depot here, this being the distributing point for freight bound for Grass Valley, Nevada, and a large scope of mining country. The town is named in honor of Schuyler Colfax, one of the warmest

friends and earliest supporters of the road.

Colfax is one of the prettiest and most substantial of the railroad towns. It contains about 200 buildings, some of brick, the remainder of wood. There are three hotels, one church, several saloons, Odd Fellows' and Masons' halls, etc. The town contains about 1,000 inhabitants, is well watered, and has an air of general thrift about it, which marks all the permanent towns along the road.

STAGE LINES AND FREIGHT.

The Iowa Hill line runs daily stages to Iowa Hill, 12 miles. The Telegraph Stage Line Co., C. J. Shaw, agent, run daily lines to Grass Valley, 13 miles; Nevada, 17 miles; North San Juan, 29 miles; Camptonville, 41 miles; Forest Hill City, 60 miles, and Downieville, 75 miles. Fast freight for Nevada, Grass Valley, San Juan, Little York, You Bet, is taken on four-horse express wagons by an enterprising line. But the regular freighting goes a little slower, generally. The Grass Valley and Nevada freight is a very important item in the business of the railroad; these large towns receiving all their freight from this point. Iowa Hill and the mining country across the American river is supplied from this station.

As the traveler may desire to visit some of the California towns, we will give a few items regarding some connected by stage with Colfax.

GRASS VALLEY.

This thriving mining town lies thirteen miles northerly from Colfax, and contains about 5,000 inhabitants. It is a beautiful town,—one of those lovely places only met with in the California mines. It contains numerous fine buildings, public and private. The private dwellings, generally, are enclosed in fine orchards and gardens, which give an air of comfort and home-like beauty rarely met with. The town derives its prominence from the quartz mines in and around it. No town in the State has produced an equal amount of gold from

quartz; none has added more real wealth to the State at large.

NEWSPAPERS, SCHOOLS AND CHURCHES.

The Grass Valley *National*, Democratic, daily, and Grass Valley *Union*, daily, are well conducted journals, very zealous in their local interests. The schools are among the best, and well attended. The churches, which are neat, tasty structures, represent several denominations. The Orphan Asylum, under charge of the Sisters of Mercy, is a noble edifice, a credit to the community, and in its management it reflects honor on those noble ladies whose lives are devoted to alleviating the sufferings of others.

HOTELS.

There are four of these necessary institutions here, of which the Exchange, kept by Charley Smith, is the most noted resort for travelers.

LINES OF TRAVEL.

The town is connected with Nevada and the northern towns by stage; also with Marysville.

MINES, MILLS, ETC.

In September, 1850, a miner picked up a piece of gold bearing quartz on Gold Hill. From this prospecting commenced, and soon several valuable mines were opened. In 1851 the first quartz mill was erected in Boston ravine, now one of the most populous portions of the town. We can only give the names of a few of the most noted lodes, which have rendered this the foremost mining town in the State. They are the Allison Ranch vein, Rocky Bar vein, Eureka and the Old Emperor's vein. The quartz mills are all supplied with all the modern improvements, milling the ore with little loss. There are many of these structures in and around town, thousands of dollars being invested in this property. The custom mills work rock very cheap, affording prospectors an opportunity to test their discoveries. From our knowledge of Grass Valley and the quartz belt of Nevada county, we would advise

prospectors to try their luck in that section, in preference to running after any excitements in other and less favored localities.

NEVADA,

The county seat of Nevada county, is situated on Deer creek, four miles from Grass Valley, and contains about 4,000 inhabitants. It is rather irregularly laid out, owing to the formation of the land, and the creek which runs through a portion of the town. The county buildings are very fine, the jail one of the best in the State. There are many elegant private residences, and in all parts of the city we find the tasty gardens, flourishing orchards and vineyards, their bright green foliage contrasting strikingly with the brown or red hillsides.

NEWSPAPERS, SCHOOLS AND CHURCHES.

The Nevada *Transcript* and Nevada *Gazette*, Republican, dailies, are first-class local journals, and deserving of success. Nevada boasts of her public schools, and justly too—for in no county in the State is the educational interest more flourishing or better represented. The several denominations have fine churches, which are very well attended. The colored citizens of Nevada have a church of their own, and a large congregation, considering the number of that class of citizens.

HOTELS.

The city contains several, the leading ones being the National, by J. Lancaster, and the Union (the largest frame building in the State), by Eaton & Williamson. We can recommend both, and besides we will add, do not leave Nevada until you "go to 'Blaze's.'"

LINES OF TRAVEL.

Nevada is connected by stage with Marysville, *via* Grass Valley; Dutch Flat, *via* Little York and You Bet; North San Juan and Downieville.

MINES AND MILLS.

The first mining in Nevada was placer, creek and gulch-washing. The

mines were very rich, and lasted several years. During this time, the famous hill "diggings," a part of the "old river bed," were discovered and opened. They, too, proved a source of great wealth, though many miners became "dead broke" before the right system—hydraulic mining with long flumes—was inaugurated. These mines proved very extensive and lasting, and yet form one of the chief sources of the city's wealth. Of late years the attention of the people has been directed to cement and quartz mining, and several very valuable quartz veins have been opened, and fine mills erected on them. The quartz interest is now a decided feature in the business of the city.

NORTH SAN JUAN,

A hydraulic mining town, situated in the richest part of the "deep digging," 29 miles from Nevada, is one of the liveliest mining towns to be met with, and contains about 1,500 inhabitants. The town is surrounded by orchards and vineyards, and the residences are fairly embowered in flowers. The township in which San Juan is located produces over \$1,300,000 in gold annually.

CAMPTONVILLE,

Forty-one miles from Nevada, is a small mining town in Yuba county, containing about 500 inhabitants. It is dependent on placer mining, and has a portion of the "old channel" or hill mines in its immediate vicinity.

FORREST HILL CITY,

Sixty miles from Nevada, is also a mining town of 400 inhabitants, situated in Sierra county. The mines are "drift diggings."

DOWNIEVILLE,

The largest town in Sierra county, 75 miles from Nevada, situated on the Yuba river, and contains about 1,000 inhabitants. It is a flourishing town, neatly built, containing many elegant private and public buildings, including several good hotels. The Downieville *Messenger*, weekly is published here,—an excellent mountain journal.

We will now return to Nevada, adding, as a parting word, that these places are all accessible by stage from Colfax, *via* Nevada and Grass Valley. We will now note the towns lying on another stage route.

EUREKA SOUTH,

Or, Graniteville, a small quartz mining town, 28 miles from Nevada. It is situated in the midst of a rich quartz section, has several quartz mills, and is a thriving town. Connected with Nevada by stage. Population, 800.

On the stage road from Nevada to this place, we find

LAKE CITY,

Eleven miles from Nevada. A small mining town, dependent on placer mines. Population, 250. Three miles beyond, we come to

NORTH BLOOMFIELD,

Or Humbug, a mining town of about 350 inhabitants. Deep and rich "diggings" are found here, but the want of proper drainage prevents them from being worked to advantage. With this defect remedied, Humbug would be humbug no longer.

Six miles further on, we arrive at

MOORE'S FLAT,

A rather fine mining town of about 600 inhabitants. The mines are placer, deep washing, have been very rich, and are still paying. The town contains many good buildings and a Catholic Church.

Between Bloomfield and Moore's Flat is the little mining town of

WOOLSEY'S FLAT,

Once a populous mining town, now nearly deserted, probably not over 50 or 75 people remaining there.

We must not forget to mention the

GLEN BROOK RACE COURSE,

A fine mile-track, situated half way between Nevada and Grass Valley. It is located in a little valley, surrounded by low hills and is kept in excellent order. It is claimed that the fastest time ever

made in the State has been made on this track. It is owned and kept by Ned Pratt.

We will now return to Colfax and see what towns there are to note in the opposite direction.

IOWA HILL, a mining town, 12 miles south of Colfax. A good toll road crosses the American river on the bridge which we saw when rounding Cape Horn, and follow up the mountain to the town, which contains about 600 inhabitants.

ILLINOIS TOWN, about half a mile west of Colfax, once a noted freighting point for the surrounding mines. It now contains about 100 inhabitants. Some of the finest apple and peach orchards in this section are found here, the attention of the inhabitants being directed to fruit-growing and farming.

Leaving Colfax, we resume our journey. Following down Auburn ravine, at times near its bed and anon winding in and out among the hills, passing cosy little ranches, we reach

CLIPPER GAP.

Once a thriving camp, now only a depot for the freight needed in this vicinity. Elevation, 1,757 feet. We leave the ravine and keep along among the foothills to hold the grade, and after passing through many an old washed placer mine, we arrive at

AUBURN.

This is the county seat of Placer county, a town of 1,000 inhabitants. Elevation, 1,362 feet. Gardens and orchards abound, and everything betokens quiet, home-comforts and ease. It has excellent schools and fine churches, and is one of the neatest looking towns in the county, though not as lively as regards business, freight and travel. The public buildings, court-house, etc., are good, and the ground well kept. The greater part of the dwellings stand a little distance from the road.

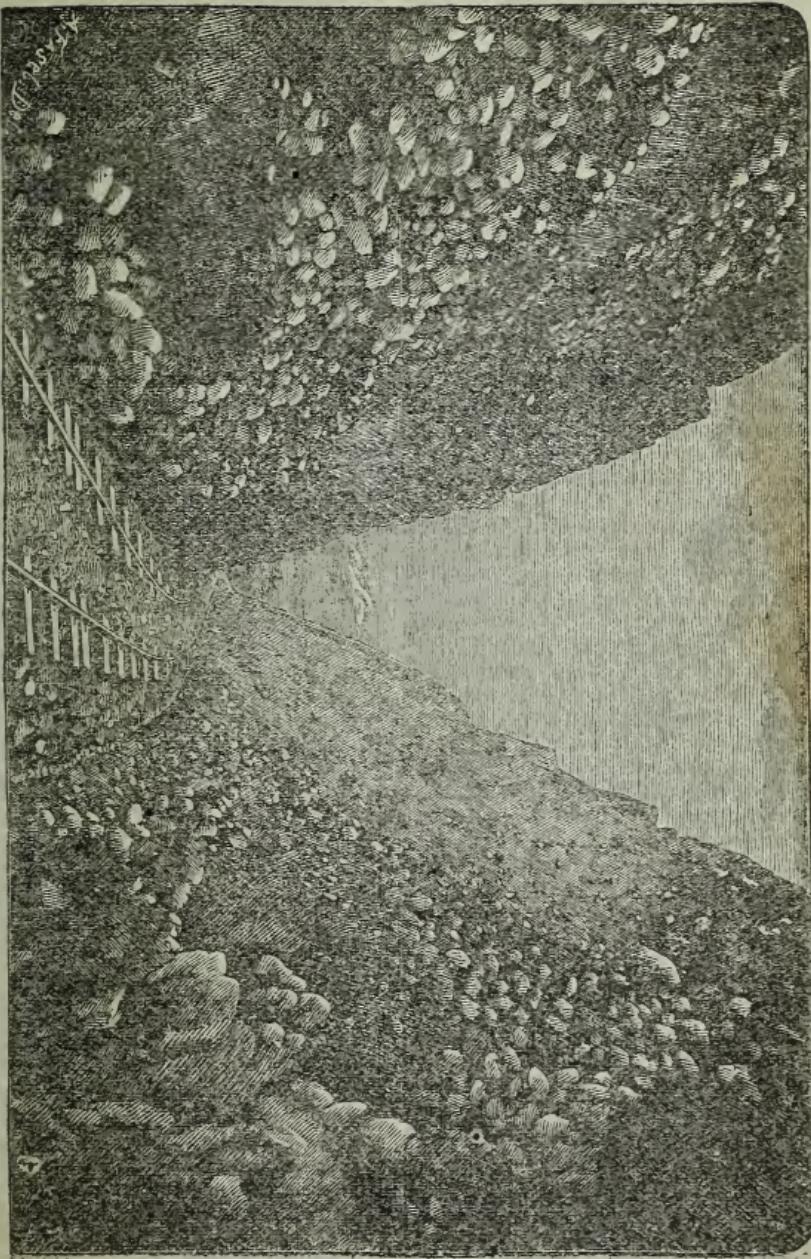
The principal hotels of Auburn are the American, Orleans, and Railroad House. The *Stars and Stripes*, Republican, and the *Placer Herald*, Democratic, both weekly newspapers, are published here.

STAGES, run daily from this point to Pilot Hill, six miles; Cave Valley, six miles; Greenwood, twelve miles; and Georgetown, seventeen miles. The Auburn Stage Line to Forest Hill, 21 miles, and Michigan Bluffs, 30 miles. Also Page's or Citizen's lines to Placerville, 29 miles, via Alabaster Cave, Pilot Hill, Coloma and Cold Springs.

ALABASTER CAVE.

This most remarkable cave is situated 8 miles southeast of Auburn on Kidd's Ravine, about a mile above its junction with the north fork of American river. As we cannot afford the space necessary for a full description, we can do no better than to copy the announcement that was made by the first explorer, Mr. Gwynn, and published in the *Sacramento Bee*, August 19th, 1860. He says:

"Wonders will never cease. On yesterday, we, in quarrying rock, made an opening to the most beautiful cave you ever beheld. On our first entrance, we descended about 15 feet, gradually to the centre of the room, which is 100x30 feet. At the north end there is a most magnificent pulpit in the Episcopal Church style that man ever has seen. It seems that it is, and should be called, the 'Holy of Holies.' It is completed with the most beautiful drapery of alabaster sterites, of all colors, varying from white to pink-red, overhanging the beholder. Immediately under the pulpit there is a beautiful lake of water, extending to an unknown distance. We thought this all, but, to our great admiration, on arriving at the centre of the first room, we saw an entrance to an inner chamber still more splendid, 200x100 feet, with most beautiful alabaster overhangings, in every possible shape of drapery. Here stands magnitude, giving the instant impression of a power above man; grandeur that defies decay; antiquity that tells of ages unnumbered; beauty which the touch of time makes more beautiful use exhaustless for the service of man; strength imperishable as the globe, the monument of eternity—the truest emblem of that



Bloomer Cut—85 feet deep and 800 feet long—Sierra Nevada Mountains, C. P. R. R.—(From photograph.)

everlasting and unchangeable, irresistible Majesty, by whom, and for whom, all things were made."

Soon after leaving Auburn we pass through "Bloomer Cut" (See Illustration), then over Newcastle Gap bridge, 528 feet long, and 60 feet high; and five miles brings us to

NEWCASTLE.

Elevation, 969 feet. It is but a small place, containing about 200 inhabitants. We pass on through little valleys and among low hills, with evidences of past and a little present mining.

Off to the right are the old time mining camps of Ophir, Virginia City, Gold Hill, and several others, where yet considerable placer mining is indulged in by the old settlers, who are good for nothing else. There is a miner's cabin under yonder tree, with a little patch of garden, and—yes, a rose-bush in front. Look! old '49 comes to the door, pipe in mouth, a twenty years' beard sweeping his bosom, and gazes on the passing train. Look with what a deprecating gesture he admits the fact that the railroad has got ahead of *his* time, and is sending its loads of rosy-cheeked women into the country to disturb *his* peace and quietness. Sadly he turns to enter his lonely cabin, when we read on the seat of his unmentionables, "Warranted 98 lbs., superior quality." Poor fellow, who knows but that the next time we pass this way, we may behold another man, outwardly, but still the same. The beard will have been trimmed, the house "tidied" up, the flour-sack patched limb-shrouders will have given place to "store-clothes," and a smiling, rosy face, surmounted by a waterfall, will look out of the doorway of what is now a real home. So mote it be.

Just after leaving Newcastle, we catch the first glimpse of the beautiful valley of the Sacramento, from the windows on the right-hand side the cars.

PINO.

Six miles west of Newcastle. Elevation, 403 feet. Still among the low hills, covered with chaparral, manzanita and

grease-wood, the road winds onward for three miles further, passing several valuable quarries, to the right and left, when we arrive at

ROCKLIN.

Elevation, 248 feet. Here the company have a machine shop and round-house of 28 stalls, built in the most substantial manner, of granite obtained near by. The celebrated Rocklin Granite Quarries are close to the station, on the left-hand side of the road. The granite obtained here is of excellent quality, and does not stain on exposure to the weather.

We leave Rocklin, and with it the foot-hills, the country now opening out into the plains, or the valley bordering the American river. The country is still somewhat uneven, but we have no more hills to encounter. We are rapidly descending while winding around on a regular grade for three miles, and we arrive at

JUNCTION,

A regular eating station. Elevation, 163 feet.

Here the Central connects with the Sacramento and Marysville—or California and Oregon R. R. Passengers for Northern California and Oregon will need to change cars. The train is waiting; let us step on board, visit a few of the cities and towns, and see what there is to be seen.

The California and Oregon Railroad is owned by the Central Pacific Company, and under the same management. It is now completed over 100 miles north of this place, and is being pushed rapidly forward to Portland, Oregon, its *present* objective point, where it will tap the enormous trade of the Columbia River and its numerous tributaries. Yet the time is not far distant (in the age of nations) when passengers will hear, on arriving at this station, "All aboard for Puget Sound, Hudson Bay, Alaska and Behring Straits; close connections made with the *Yankee Tunnel Company*, under Behring Straits for all points in Russia, China, Japan, Germany, England, France, and the Holy Land!"

Leaving the Junction, we are whirled along over a fine road-bed, in and out among the foot-hills, with rapid and ever-changing scenery on either hand; ten miles brings us to Lincoln, then four to Ewings, four to Sheridan, three to Wheatland, six to Reeds, and five more to

YUBA CITY,

The first place of much importance on the road. Yuba City has a population of about 1,000; it is situated on the eastern bank of the Feather River, just above its junction with the Yuba. It is the county-seat of Sutter county, first settled in 1849. It has good schools and churches, and a weekly newspaper, the *Banner*. The county was named after Gen. Sutter, the old pioneer, at whose mill-race at Coloma, El Dorado county, on the south fork of the American River, January 19th, 1848, the first gold was discovered in California. The county has a population of about 6,000, mostly engaged in agriculture. The soil is very fertile, and produces large crops of wheat, oats and barley, there are also some very fine vineyards, producing a superior quality of fruit, from which over 30,000 gallons of wine and brandy are made annually.

Yuba City is at the head of steamboat navigation, and in addition to the California & Oregon Railroad, it is connected with Sacramento and San Francisco by the California Pacific R. R. via Vallejo. Don't fail to visit

"THE BUTTES,"

A noted landmark near the city. They consist of a series of peaks that rise from the crest of an isolated mountain range which stands bold and clear among the plains. From appearances, one would be led to suppose that this ridge crossed the valley at one time, when this was an inland sea; and when the waters escaped from the lower valley, those confined above cut a portion of the ridge down level with the plain, and escaping, left a beautiful valley above.

Let us take a climb to the summit of their bald peaks, and from thence view a

portion of the valley, fair, bright and smiling with God's best gift to man. Away to the northward 220 miles, in latitude 41° 30', is

MOUNT SHASTA,

An insulated and lofty volcanic mountain, over 14,440 feet high. It is covered with perpetual snow, and is the head and source of the Sacramento river. To the northwest, in the Coast Range of mountains, can be distinctly seen Mt. Linn, St. John, and Ripley. On the south, Mt. Diablo, in the Contra Costa range, while on the east, from north to south, are the long range of the Sierra Nevadas as far as the eye can reach. Returning to Yuba City, we cross Feather River bridge two miles to

MARYSVILLE,

One of the prettiest towns in the State. It is the county seat of Yuba county, situated on the north bank of the Yuba river, with a population of 4,738. It was first settled in 1849, and named in honor of the only white woman within its limits, Mrs. Mary Covilland. The town is built of brick, the streets wide, and laid out at right angles. The chief beauty of Marysville consists in the shrubbery which ornaments the town, though there are many elegant public buildings and private residences in the city. Scarcely will you find a dwelling that is not surrounded in a forest of fruit and shade trees or embowered in a mass of vines and flowers. During the past few years the town has been improving rapidly. It carries on an extensive trade with the northern part of the State, and now it may be classed as the fourth commercial town in the State.

Marysville has two newspapers. The *Appeal*, daily and weekly, a radical republican, is the oldest. The *Standard*, daily, independent. It has two seminaries, four public and numerous private schools, which are of a high order and well attended. There are also some five churches, nearly all denominations being represented. The city is lighted with gas, and supplied with water from an ar-

tesian well 300 feet deep, from which it is elevated by steam power to a reservoir, and thence conducted all over the city. It has quite a number of manufactories—such as carriage, sash and door, breweries, woolen mills, flour mills, &c.; also an extensive iron foundry and machine shop, where are manufactured all kinds of mill machinery, stationary engines, &c.

Agriculture is now the principal source of wealth of the county. Fruit culture and stock raising are very remunerative. There is still considerable good government land awaiting the emigrant, and some fine timber land along the base of the mountains. There are 18 saw-mills in the county, engaged in sawing timber and lumber, which is shipped down the river. Most of the mining is now done by hydraulic process. There are 12 quartz mills in the county, and 26 companies owning canals, or mining ditches, one of which, the Excelsior, cost over \$500,000, and, with its branches, is over 150 miles in length.

There are regular stage lines from Marysville to Colusa, 29 miles; Downieville, 65 miles; North San Juan, 38 miles; Grass Valley, 36 miles; and Nevada, 40 miles. In addition to the California & Oregon Railroad, there are two other lines which have their termini at Marysville—the California Pacific Railroad, for Sacramento and San Francisco, via Vallejo, and the Northern California Railroad, running to

OROVILLE,

twenty-six miles distant. This town has a population of 1,425, and is the county-seat of Butte County. Placer mining is the principal employment of the people. The mines around this town were very rich and extensive, and have been worked for many years. The town possesses the general characteristics of the old mining towns, beautiful gardens and orchards, which give to these places an indescribable charm. This county possesses some of the finest agricultural land in the State. All kinds of grain and produce are raised in abundance.

The vineyards are numerous, producing over 15,000 gallons of wine and brandy annually. Raisins are produced in large quantities, and an immense amount of peanuts are gathered for market every year. Stock raising is also an important feature. Wool is a staple export of the county, one herd alone of sheep numbering 9,000. Schools and churches are in a flourishing condition, a sure evidence of a people's prosperity. The *Record*, a weekly paper, is published here. Stages leave Oroville regularly for La Porte, 52 miles; Susanville, 105 miles; as well as to most of the adjoining towns.

Returning to Marysville, we again seat ourselves in the cars, on the C. & O. Railroad, and start again to the northward, passing through a fine section of country. Seventeen miles brings us to Gridley, three more to Biggs, ten to Nelson, seven to Durham, two to Roble, and four more to

CHICO,

One of the prettiest towns in the State. It is 43 miles from Marysville, 95 from Sacramento, 25 northwest from Oroville, and 5 miles east of the Sacramento river, situated in Chico valley, Butte county, in the midst of as rich a farming section as the State affords. Population 3,714, and increasing rapidly. It has good schools and churches, and one newspaper, the *Northern Enterprise*. Near the town, General Bidwell, the old pioneer, has an extensive ranch, or farm, as it would be called in the Eastern States, which is in a very high state of cultivation, producing abundantly all kinds of fruits and plants of the temperate and semi-tropical clime.

From Chico it is 7 miles to Nord, 8 more to Soto, 4 to Vina, 8 to Sesma, 11 to Tehama, and 12 to

RED BLUFFS.

The track is now nearly completed to Mount Shasta, and will probably be completed to the State line during this season, and possibly further. Red Bluff is the county-seat of Tehama county, at the head of navigation on the Sacramento

River, with a population of 1,032, and rapidly increasing. It is situated in the midst of rich agricultural and grazing lands, with thriving vineyards, producing over 30,000 gallons of wine and brandy annually. It has several good hotels, two weekly newspapers—the *Independent*, and the *Sentinel*. The California Pacific Company proposes to extend their road to this town, which will give it another connection with Sacramento and San Francisco, via Woodland and Vallejo. The California and Oregon stages for the north, and several other stage lines, connect the adjoining towns.

Returning to the Junction, we proceed over a level country dotted with oaks of several varieties, three miles, to

ANTELOPE.

A small station. Elevation, 154 feet. Seven miles more are passed, and we arrive at

ARCADE.

Elevation, 55 feet. We now proceed at a merry rate over the level meadows. Four miles from Arcade the long train slowly crosses a long stretch of trestle work through the marsh lands, and then over the

AMERICAN RIVER BRIDGE,

which spans the main stream, and now we pass along by the orchards and gardens which fringe the suburbs of the capital of California—Sacramento City. The grand dome of the State Capitol rises clear and distinct against the soft sunny California sky, but now the long line of machine shops shuts out the view. We pass by them, and are now on the bank of the Sacramento river, with solid blocks of brick stores on our left and the crowded wharves on our right. Three miles from the bridge the train enters the long line of depots, the clatter of the iron wheels ceases, the locomotive gives a triumphant salute, as we stop at

SACRAMENTO STATION,

Which was the western terminus of the grand trans-continental railroad until the spring of 1870. Upon the completion of

the Western Pacific from Sacramento to San Francisco, the two roads were consolidated under the name of the Central Pacific Railroad of California, making one unbroken line from San Francisco to Ogden, 882 miles long. Elevation, 30 feet. Distance from Sacramento to Omaha, $1,776\frac{1}{100}$ miles; Kansas City, 2,002 miles; to Stockton, 50 miles; San Francisco, 138 miles; Vallejo, 60 miles; Marysville, 52 miles; Portland, Oregon, 642 miles. This is the end of the Sacramento and the commencement of the Western Division.

But we promised to tell you where to go, and who to stop with. Sacramento has many good hotels. There is little difference in any of them. The Orleans, Golden Eagle, and Capitol, are the most frequented by tourists. You will find "free busses" at the depot that will take you to any of them. We will now take a look at

SACRAMENTO CITY.

It is situated on the east bank of the Sacramento river, south of the American, which unites with the Sacramento at this point. The city is mostly built of brick; the streets are broad, well-paved, and bordered with shade trees throughout a large portion of the city. It contains numerous elegant public and private buildings, including the State Capitol and county buildings. The population of the city numbers 16,283 by last census, and is rapidly increasing.

Sacramento has six newspapers, four of which are dailies:—The *Union*—established 1851—daily and weekly, independent in politics; the *Bee*, Republican, daily and weekly; the *Record*, daily and weekly, Republican; the *State Capitol Reporter*, daily and weekly, Democratic; the *Journal*, a semi-weekly, German; and the *Rescue*, a weekly temperance paper.

Churches of nearly all denominations, and public and private schools, are numerous. There are two Orphan Asylums—one Catholic, by the Sisters of St. Joseph—and the other Protestant. So the

orphans need not suffer, as they are well attended to.

Masons, Odd Fellows, and many other secret associations, have lodges and meetings here. The city is lighted with gas, and watered from the river by the aid of two pumps, with a lifting capacity of about 90,000 gallons per hour.

There is much of interest in Sacramento to the traveler, aside from the fact of its being the capital of the State, and the centre of the railroad system, which has given new life and impetus to the inland commerce of the State. Sacramento is the heart, so to speak, of this system of iron arteries, whose pulsations reach even to the Atlantic seaboard on the east, and to those far-away and almost unknown nations of the west—the oldest, though the least known and appreciated, of all the nations with whom commerce has connected our western shores. Aside from these facts, which render the city one of interest in a geographical and commercial point of view, there is a quiet beauty peculiar to this city alone, which renders it attractive to the most careless of travelers. Its well shaded streets—its beautiful gardens, blooming with an almost tropical luxuriance—its vineyards and orchards—all combine to form a city such as one rarely meets with in California, and nowhere else.

Sacramento is endeared to Californians, not by reason of her present beauty and prosperity, but because she is truly an American city, whose people, by their indomitable energy and perseverance, have raised this monument to our national character, despite the ravages of fire and flood. Not only have they rebuilt their city, but they have built the ground on which it stands, and to-day the city stands some ten feet above the original site on which Sacramento was first established.

From the small and unimportant hamlet of a few years ago, it has emerged a thriving, bustling city. Fires burned the young city to the ground; but it rose, Phoenix like, more beautiful than ever. The floods swept over it as with

a besom of destruction in the winter of '51-2, and the waters were rushing with irresistible force through every street. When they abated, the people went to work and built levees around their city, and fancied themselves secure. Again the floods came in the winter of '61-62; Sacramento was again inundated. To guard against a recurrence of these evils, the city bed was raised above the highest known tide, and instead of wearing away a levee, the angry waters find a solid mass of earth, on which stands the city, against which their efforts at destruction are futile. To one who has not resided on this coast, it may at first seem strange that a city should have been located in the midst of such dangers. When Sacramento was laid out, both the Sacramento and American rivers had bold banks, above the reach of any floods. But when the thousands of miners commenced tearing down the mountains and pouring the debris into the rivers, the sediment gradually filled up the river bed from 12 to 18 feet above its former level. Consequently, when the spring sun unlocked the vast volume of water confined in the mountain snows, and sent it foaming and seething in its mad power to the plains, the old and half filled channel could not contain it, and a large body of country was annually inundated. Levees were tried in vain; the mighty torrent would not be confined; hence the necessity of raising the city above its ravages. This has been accomplished; and beyond the present line of high grade, a powerful levee surrounds the unfilled portion of the city, on which is a railroad track, forming an iron circle or band, which no past floods had power to break.

The city is laid out in a regular square, the streets running at right angles, fronting on the Sacramento river, which here runs nearly north and south. They are numbered from the river, 1, 2, 3, etc. Those running from the river back, or east and west, are numbered with the alphabet, A, B, C, etc. It is probable that in time, that portion of the town, which consists mostly of private resi-

dences, will be raised to the high grade; but whether it be raised or remain at its present grade, it is equally secure against floods, being hemmed in by the high grades and the levees, which are guarded and kept in repair by the various railroad companies whose lines center in the city.

THE CAPITOL BUILDING.

One of the first objects which meets the eye when approaching Sacramento, is the dome of the STATE CAPITOL building. It is a conspicuous landmark, and a grand feature of the plains. The building occupies the center of four blocks, fronting on Broadway.

The general plan of the building can be thus described: It presents a front of 320 feet. Facing the main avenue, in the centre of the front, a flight of granite steps, 25 feet high by 80 feet in width, lead to a front portico of ten columns, through which, and a large hall, the rotunda of 72 feet diameter is found, in the exact centre; and from this, in each story, halls, elegantly arched, extend through the front and wings, the State offices being on either side. The wings forming the flanks of the building are 164 feet above the first or basement story. The north and south flanks of the building form, respectively, the Assembly and Senate chambers, the former being 82x72, and the latter 72x62. In the rear centre a circular projection of 60 feet diameter forms the State Library. These three apartments are 46 feet high from floor to ceiling, and are unsurpassed in elegance of design and finish—especially the Library, which is surmounted by a beautiful dome, resting on two circular rows of Corinthian columns, the different stories or shelves being arranged so that the books are all within reach. Rows of similar columns are under the galleries of the legislative halls at the ends, while the sides spring from pilasters, and terminate in a light-groined full arch. The ceiling, which terminates in a cone at the sides, is elaborately finished with flowers and enriched bands. The sinkings are three feet deep, flowers and

fruits indigenous to the State forming their ornaments. The Speaker's desk occupies the east end, and is of mahogany of elegant design. The panels and pedestals under the windows (which are finished with plate glass in two lights to a window), are of the beautiful laurel, well known in California for its susceptibility to receive a high polish. All the first floor doors are of walnut, with laurel panels, as are also the sash throughout the building.

The whole interior is one solid mass of iron and masonry. The dome of the interior rotunda, which is of iron ornaments and brick work, is exceedingly handsome. It rises 127 feet, with an outside dome over this nearly 100 feet higher, surrounded by a portico of columns, and surmounted by the statue of California, all of iron. It is not entirely finished. It is now nearly 80 feet high, surmounted by an iron balustrade, on a massive and elegant Corinthian cornice of over four feet projection. The cornice is cast iron; also the 72 caps of pilasters, window frames, panels, pedestals, belts, &c. The 22 columns, 40 feet high, four of which are up, are of the same material. The first story of 25 feet is of white granite, from neighboring quarries, and is surmounted by a cornice of the same.

The Capitol Commissioners concluded to change the material, and with the advice of their architect, the granite was abandoned in 1866. He informed them he could not produce the effect and lightness of the florid Roman-Corinthian architecture with this material. Mr. Clark was appointed the first architect, and conducted the building satisfactorily, from the heavy foundation until the walls were some twelve feet from the street level, when he became ill, and soon after died.

On the 1st of January, 1866, the commissioners appointed the present architect, Gordon P. Cummings, formerly of Philadelphia, who was well known as the first of his art on the coast.

Gas and water are supplied to every department in the building, nearly 70 in number, including the Supreme Court

room, which is under the library. The stories are, respectively, 21 feet 6 inches, 20 feet and 18 feet in height. The building will cost, when completed, over \$2,000,000. It covers, with its angles, nearly 60,000 surface feet of ground, and measures over 1,200 lineal feet round in all the angles. For the three principal chambers, the gas fixtures cost nearly \$3,000, and is lighted by electricity. It is now occupied by the Legislature and State officers.

MANUFACTORIES.

Within the city are three flour mills, with a capacity of 1,200 barrels per day in the aggregate; two foundries and machine shops, where engines and mill machinery are made; a woolen mill, a manufacturer of beet sugar, and many others of lesser note. But among all, the

MACHINE SHOPS

Of the Central Pacific Railroad stand foremost. They are situated on the east bank of the Old Slough, between that and the American river, and with the tracks, yards, etc., cover about 20 acres. The buildings first erected are of wood, still standing and in use. The new buildings are of brick, comprising a machine, car, paint and blacksmith shops, round-house, and several other buildings.

THE CAR SHOP.

This building is 90 by 130 feet, with an L, 46 by 90. The foundation of this building rests on piles, 1,500 in number, driven to the solid gravel, and their tops left below the water line, 12 feet below the surface of the ground. This space is filled with 6,000 yards of solid masonry, rough ashlar, the material being Rocklin granite, bringing the foundation level with the top of the ground. The description of the foundation of this building answers for the others, all being built alike.

On the roof of the main building is a water tank, holding 12,000 gallons. The machinery is in the centre of the shop, with passages on each side. The rough

timber is brought in at one end of the shop, the new car goes out at the other. There are three lines of shafting through the car shop. In the second story are the offices of the department of motive power and machinery, which are fitted up in the most convenient manner. About 150 men are employed here, under the charge of Mr. Welch. Capacity of the shop, 30 box or 40 flats per week; coaches in proportion. The cars manufactured here are equal to the best in material, manufacture and finish. It will not be long before all the cars used on the road will be made in the company's shop.

THE PAINT SHOPS,

Of which there are two connected with the car department, employ about 50 men. One of the shops is 40 by 200 feet; the other is a trifle smaller. It is a noted fact that the cars on both the C. P. and U. P. R. R. are far superior in size, style and finish to those on the majority of the eastern roads, and for strength and completeness of the arrangements for comfort in riding, they have no superior on any road.

THE MACHINE SHOP

Is 100 by 205 feet, 23 feet high, with a false end, calculated for extending the length of the building, as circumstances may require. The car shop is built in the same manner. The company have another machine shop situated on J street, near Front, 116x36, with a 36 horse-power engine. A prominent feature of the first-named machine shop is the shifting table, by which the heaviest locomotive can be lifted, swung over the others, and conveyed to any stall. In this shop and the round-house every kind of machine work can be observed in detail. All of the latest and most approved styles of machinery, lathes, boring, shaving and planing machines, hydraulic presses, &c., may be seen in operation. In speaking of this work, we will class it as

THE IRON DEPARTMENT,

Under charge of Mr. Geo. D. Welch. This department employs about 350 men, who are engaged in repairing and overhauling locomotives, making tanks, repairing and making boilers, and many other things, the use of which, or the names, we could not determine. They are able to meet all demands, making almost every part of a locomotive, and soon they will be prepared to manufacture their own locomotives, car-wheels, &c., instead of importing them.

The new locomotives are shipped in pieces and "set up" in the shop. The principal

BLACKSMITH SHOP

is of brick, of corresponding size with the other shops. It will contain from 30 to 40 forges, employing about 100 men. Two fires are used exclusively to work over old axles. On J street near Front, the Company have another shop, 40x80. Also a

FOUNDRY,

where all the castings used by the company are made—except car wheels—and arrangements are making which will enable them soon to make them.

THE ROUND-HOUSE

Contains 28 stalls, and is a splendid brick structure. The turn-table is of new design, and very large. Behind the round-house is a polygon-shaped brick building, with heavy buttresses at each angle, containing the oil and water tanks, also a store-room. The oil-tank is about half and half above and below the surface of the ground. The building is 30 feet in diameter in the clear, with a brick column in the centre, which arches out, forming the first floor. This oil-cellars has seven vats, with pipes reaching through the groined roof. The second story, or first floor above the basement, is for a general store-room. The floor above is boiler-iron, with iron

We commend the Chinese credit system, one-half cash down, when ordering a bill of goods, the other half on delivery.

joists to support it. This floor is for the officers' quarters. Above this, and on top of the building, is the water-tank—containing 45,000 gallons. It is connected with every part of the round-house by hose, and calculated for washing out the engines and stalls. A winding outside staircase reaches to the top of the building, with landings at each floor.

THE ENGINE

Which furnishes the power with which to work all this machinery is a Corliss, 20-inch cylinder, 4½ feet stroke, 80 horse power, nominal. The fly-wheel is 18 feet in diameter, weighs 14 tons. The furnace chimney is 92 feet high, built of brick, with $\frac{1}{8}$ of an inch batter, giving six feet taper. It is surmounted by an iron cap of a ton's weight. The chimney rests on a brick foundation, containing 60,000 brick, which in turn rests on 49 piles. There are two immense boilers resting on this foundation also, which are fitted with every modern improvement, including Clark's patent damper regular, a regular automaton engineer. Each boiler is supplied with a four-inch steam pump, Cross's patent, and a Knowles' patent feed or water heater. Water is obtained by means of two artesian wells, each 13-inch pipes and 75 feet deep. Two lift-pumps 6½ inch bore, raise the water into the tanks on the buildings, from thence to the tank behind the round-house. Pipes run through the various buildings with hose attached, and in case of fire a hundred streams could be brought to bear on any given point in the shops.

The store-house is a large structure, capable of storing many tons of iron. The amount of iron, in all shapes and stages of manufacture, that meets the eye here, slightly astonishes the beholder, unless he comes from the iron mines. Shafts, axles, car-wheels, piles of flat, square and round iron meet him at every turn, until, despairing of estimating the amount, he gives up the job in disgust.

A RELIC.

The first locomotive run in California

can be seen here, used for the purpose of running the work-cars from point to point among the shops. It was built at the Norris Works, Philadelphia, and was first used in this State on the Market Street Railroad, San Francisco.

THE HOSPITAL

Belonging to the Railroad Company is a large, airy and comfortable building, located near the shops, where their men are taken care of when sick or disabled. It is well conducted, a credit to the company, and of incalculable benefit to those unfortunates who are obliged to seek its shelter. The company grounds cover 15 acres, which has been filled up to grade with the sand and gravel from the bed of the American River.

We now propose to visit a few of the most prominent towns adjoining Sacramento on the different lines of travel. The California Steam Navigation Co. dispatch daily light draft boats

UP THE SACRAMENTO RIVER.

Let us go on board. The first thing after leaving the city which attracts our attention is what is called

THE TULE LANDS.

"Tuiles," is the *native* name given to the large rushes which cover the low lands along the rivers and bays of California. They are of the bulrush family—probably the fathers of all rushes. They grow from six to ten feet high, and so thick on the ground that it is extremely difficult to pass among them. The lands on which they grow are subject to annual overflows. During the prevalence of the floods, miles on miles of these lands are under water, presenting the appearance of one vast lake or inland sea. In the fall and early winter when the tules are dry, they are often set on fire—forming a grand and terrible spectacle, especially during the night. When once the fire attains headway, nothing can quench its fury until the tules are swept away to the bank of some water-course which bars its further progress.

The soil composing the land is *adobe*, of a purely vegetable mould. Wherever it has been reclaimed, it produces grain and vegetables in almost fabulous quantities. It is claimed by many, that, with proper appliances, these lands could be converted into magnificent rice fields, the advocates of this measure asserting that they possess every requisite of soil, clime, and adaptability to irrigation.

The State has provided for a system of levees, by which it is hoped the land may be reclaimed, and should the result prove satisfactory, many thousand acres of the richest soil in the State will be opened for occupancy by the emigrant. The country, after leaving Sacramento, is level for a vast distance on either hand, the "tules" are disappearing, and before we reach Knight's Landing the left-hand shore is more bold, and the wheat fields and gardens have taken the place of "tules" along the river bank.

If the traveler wishes to visit Marysville, he can do so by rail or water. We have already pointed out the former route. Now let us go, via FEATHER RIVER, a beautiful stream, its clear waters contrasting to advantage with the muddy waters of the river we have left. We pass through a fine country with wheat farms on the higher lands and reach Nicholas, a dull, quiet town of about 300 inhabitants, situated at the junction of Bear River with the Feather. Proceeding up the Feather, we pass

HOCK FARM,

The home of the venerable pioneer of California, General Sutter. It is a lovely place, the old farm-house and iron fort standing on the bank of the stream. Enormous fig trees line the bank, while behind them can be seen the fine orchards and vineyards planted by the General 40 years ago. The General settled in California under a grant from the Russian Government, which conveyed to him large tracts of land around Sacramento City, including the city site; also a large tract, of which Hock Farm is a part. Sharpers and swindlers deprived the old pioneer of most of his

property, leaving him with nothing except this farm.

Passing on by the junction of the Yuba and Feather Rivers, we soon reach Marysville, 65 miles from Sacramento, by water. [Description on a preceding page.] Returning to the Sacramento, the right-hand bank of the river appears low and swampy, covered with "tules" for a great distance inland. Passing on, we soon arrive at

KNIGHT'S LANDING.

A small place—46 miles from Sacramento. It is quite a shipping point for Yolo county, and is on the line of the California Pacific Railroad to Marysville. Population, 800.

For a long distance above Knight's Landing the low marshy plains continue on our right, the higher land covered with wheat on our left, with no towns of any importance to note until we arrive at

COLUSA.

This is a point of considerable trade, 125 miles from Sacramento. It is the county seat of Colusa county, situated on the west bank of the Sacramento River, and contains about 1,200 inhabitants. The *Colusa Sun*, a Democratic paper, is published here.

The town was laid out in 1850, by Colonel Semple, the owner of the "Colusa Grant," containing two Spanish leagues. It is now the center of a very large farming and grazing country. Schools and churches are well represented. Stages run daily between Colusa and Marysville, 29 miles. The HOT SULPHUR SPRINGS of Colusa county are situated 20 miles west of the town, and is somewhat noted as a resort for invalids. Sulphur is also found in large deposits.

Passing on up the river, the country seems to gradually change to a grazing instead of a grain country, more especially on the west. 199 miles brings us to

CHICO LANDING.

As we have already described the town, we will pass on up the river, which, on

The Indians call the telegraph the "whispering spirit."

the right hand side, the shores are low and sedgy most of the way, fit only for grazing when the floods have subsided. Yet we pass intervals of grain fields till we arrive at Red Bluff, 270 miles from Sacramento, at the head of navigation. [See previous description of the town.] Returning to Sacramento, we take the cars of the CALIFORNIA PACIFIC RAILROAD, and cross the Sacramento River on their new bridge, which is 600 feet long, and one of the finest structures of the kind in the State.

WASHINGTON

is the first town, just across the river, with a population of 809. Leaving Washington, we cross the "Tules"—a broad belt of overflowed swamp land—on an embankment and trestle bridge, raised above the annual floods, until we reach the highlands, or elevated plains. The trestle bridge affords ample passage for the flood tides.

DAVISVILLE

is the next town, 14 miles west on the road from Vallejo to Marysville, via Woodland. It has a population of about 800. The *Advertiser*, a weekly paper, is published here. Davisville is in the midst of a fine wheat country, and will remain a point of shipment for the vast crops annually raised in that vicinity.

Turning to the northward, the next station of importance is

WOODLAND,

The county seat of Yolo county, 9 miles distant. It is situated 3 miles west of Cache creek, in the midst of an extensive plain. The town has improved very rapidly during the past two years, and is now one of the most thriving in the State. Yolo county in the summer is one vast wheat-field,—far, almost, as the eye can reach, the waving wheat stretches away on either hand.

It is a sight worth seeing, to behold these fields of grain, and to observe the process of harvesting them. Through this wheat country we find few fences, often seeing none in half a day's ride.

Woodland has a population of 2,000,

with good schools and churches. There are two weekly papers printed here—the *Yolo Mail*, and the *Yolo Democrat*. Large shipments of grain, wood, and live stock are made daily.

The Marysville branch of the California Pacific Railroad is now completed *via* Knight's Landing, 10 miles; Sutter, 11; and Marysville, 12 miles. Distance from Sacramento to Marysville by this route, 56 miles. The main trunk of this road is surveyed to extend from Woodland *via* Colusa to Red Bluff. As the above-named towns have been described on other routes, we will now return to Davisville, and start south, through as beautiful a section of country as one would wish to see. The stations passed are—Dixon, 3 miles; Batavia, 5 miles; Vaca, 10 miles; Fairfield, 5 miles; Bridgeport, 4 miles; Summit, 4 miles. Here we are in the

SUSCOL HILLS,

Which border San Pablo bay. These hills are very productive, the soil being adobe. To the tops of the highest and steepest hills the grain fields extend, even where machinery cannot be used in harvesting. In the valley through which we have passed are several thriving towns, but we have not time to name them—besides, the railroad does not go near enough for us to see them. Passing through a tunnel, to reach which we ascend a heavy grade, we descend into the valley bordering the bay. 7 miles brings us to

NAPA JUNCTION,

Where connections are made with the NAPA VALLEY RAILROAD for Suscol, Napa city, and St. Helena, to Calistoga, 36 miles.

Passing on, we leave the old town of Vallejo on our right. Seven miles further, making 60 miles from Sacramento, and we arrive at

VALLEJO.

The town is situated on the southeastern point of the high rolling grass-covered hills bordering Vallejo Bay, which is about 4 miles long, and half a mile wide, with 24 feet of water at low

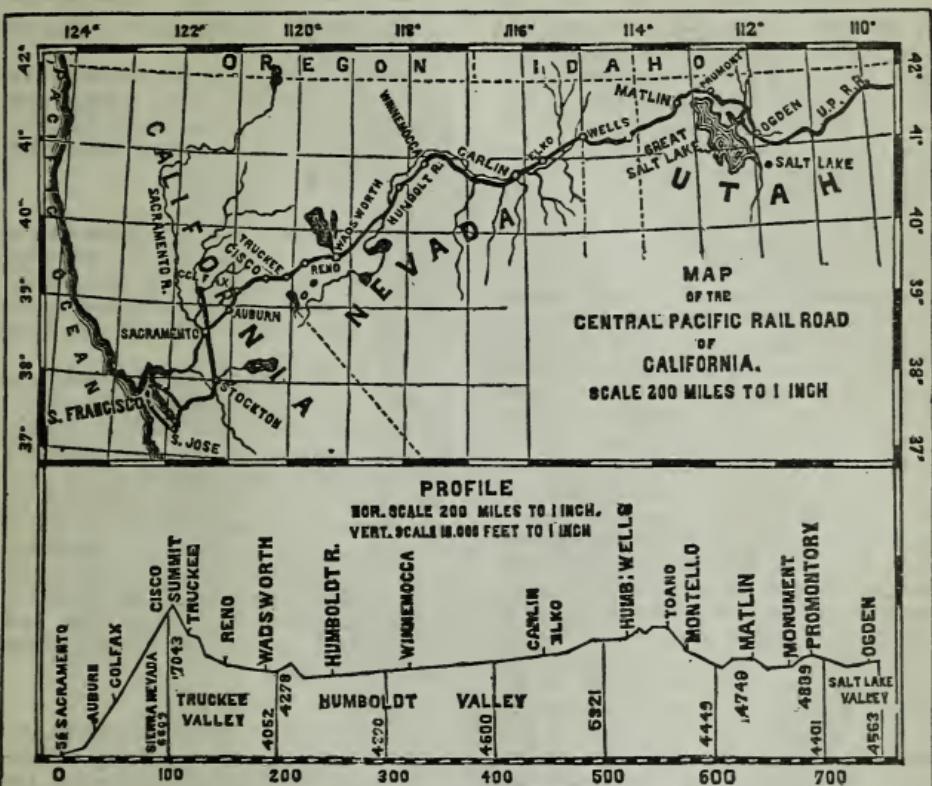
tide. The harbor possesses excellent anchorage, and vessels are securely sheltered from storms. The largest vessels find safe waters, and here are laid up the United States ships when not in use on this coast. The naval force, including the monitors, on this side, all rendezvous here. On MARE ISLAND, just across the bay, are the Government works, dry docks, arsenals, etc. The finest section dock on the coast is located on the island, just in front of the town. Ferry-boats connect with the main land and city. About 500 men are constantly employed at the Government works, though at times the number is much greater.

The population of Vallejo is 6,440. It has three newspapers—the *Chronicle*, daily and weekly; the *Recorder*, daily; and the *Solano Democrat*, weekly. It has some fine buildings, 5 churches of different denominations, 7 public, and several private schools, and one public library of over 7,000 volumes. The Orphan Asylum, a fine structure, stands on an elevation, and can be seen for a great distance. There are several good hotels at Vallejo, but the chief pride of the city is in its mammoth elevator, the only one on the coast. The cars on the railroads are so constructed as to take the grain in bulk, carry it to the elevator, where it is raised and stored. Ships of the deepest draught moor on the opposite side, and the grain is discharged into their holds.

Vallejo is a port of entry. During the year ending June 30th, 1870, 33 large vessels were laden with grain for Liverpool, and other foreign ports. It is also the southern terminus of the California Pacific Railroad, which connects here with the steamer New World for San Francisco, 23 miles distant. Returning to Sacramento, we take the steamer

DOWN THE SACRAMENTO RIVER.

The plains stretch away on either hand, and there is little to be seen except the gardens and farms along the banks on the higher ground, the wide waste of "tules," and the plains and mountains beyond. On the left, away in the dim



distance, the hills succeed the plains, the mountains the hills, until the vast pile towers among the clouds.

Winding around curves, where the stern of the boat is swept by the willows on the shore, we glide down the river, past sloughs, creeks, and tule swamps, until we pass FREEPORT, 12 miles from the city, a little hamlet of half a dozen dwellings.

Floating along between the low banks covered with willow and shrub oak, we pass MISSISSIPPI BEND, 24 miles from Sacramento. Here the river makes one of its numerous curves, almost doubling back on itself.

To the left is the little town of RICHLAND, containing a half-dozen dwellings. Now the Nevada Mountains fall behind,

and we have one vast plain around us. We pass the outlet of Sutter's Slough, and then the Hog's Back, a long sandbar, which stretches diagonally across the river. The water here is very shoal. A wing dam has been built from the western shore, half way across the channel, which throws the water into a narrow compass, giving greater depth on the bar. Next comes Cache Creek Slough, on which large quantities of grain are shipped to San Francisco via Sacramento river, from Yolo and Solano counties. Now we are passing along by the Rio Vista Hills, which come close to the water's edge on the right hand shore. These hills are the first we have seen near the river since leaving the city. They consist of one long low ridge, broken into hillocks

on its crest. These hills are excellent wheat land, yielding an abundant harvest. The land is very valuable, though but a few years have passed since it was sold for 25 cents per acre. The town of RIO VISTA is situated on the slope of the foot hills, and contains about 300 inhabitants. Formerly the town stood on the low ground, near the river bank, but the flood of '62 washed it away, carrying from 40 to 60 houses down the river. The people fled to the high lands, where they remained until the passing steamers took them away. For days the little steamer *Rescue* was plying up and down the river, running far out over the submerged plains, picking up the "stragglers," who were surrounded by the waters. Some were found on the house roofs, with the flood far up the sides of their dwellings, and others were rescued from the branches of trees, which afforded them the only resting-place above the waters. The flood of '62 will long be remembered by those who then dwelt on the banks of the Sacramento.

We next pass COLLINGSVILLE, a long wharf on the right hand side of the river, with a house or two standing close by. It is a point of shipment of considerable freight for the country and grain for the city. A little below this point, the San Joaquin river unites with the Sacramento, entering from the left, forming *Suisun Bay* (pronounced Soo-e-soon). Steaming across the bay, we arrive at

ANTIOCH,

In Contra Costa county. Population, 500. Three miles south by railroad, are the Mount Diablo coal mines, several in number; one of which furnishes 1000 tons per month for shipment at Antioch. There are several manufactories of pottery in the town, the clay in the vicinity being a very superior article. The *Ledger*, a weekly paper, is published here. Attention has lately been attracted to the silk culture, and many thousand mulberry trees have been planted. It was one of the citizens of Antioch that "got away" with the State premium of \$250, which was awarded by Act of 1868 for the

encouragement of silk culture. *But we will excuse him.*

Passing on down the bay, we enter the Straits of Carquinez, when a long, low wharf on the right attracts our attention. It is fronting the low, rolling hills which lie behind the town of

BENICIA,

Formerly the capital of the State, at the head of ship navigation, and contains about 1,600 inhabitants. It is a charming, quiet, rambling old town, with little of the noise and bustle of the busy seaport.

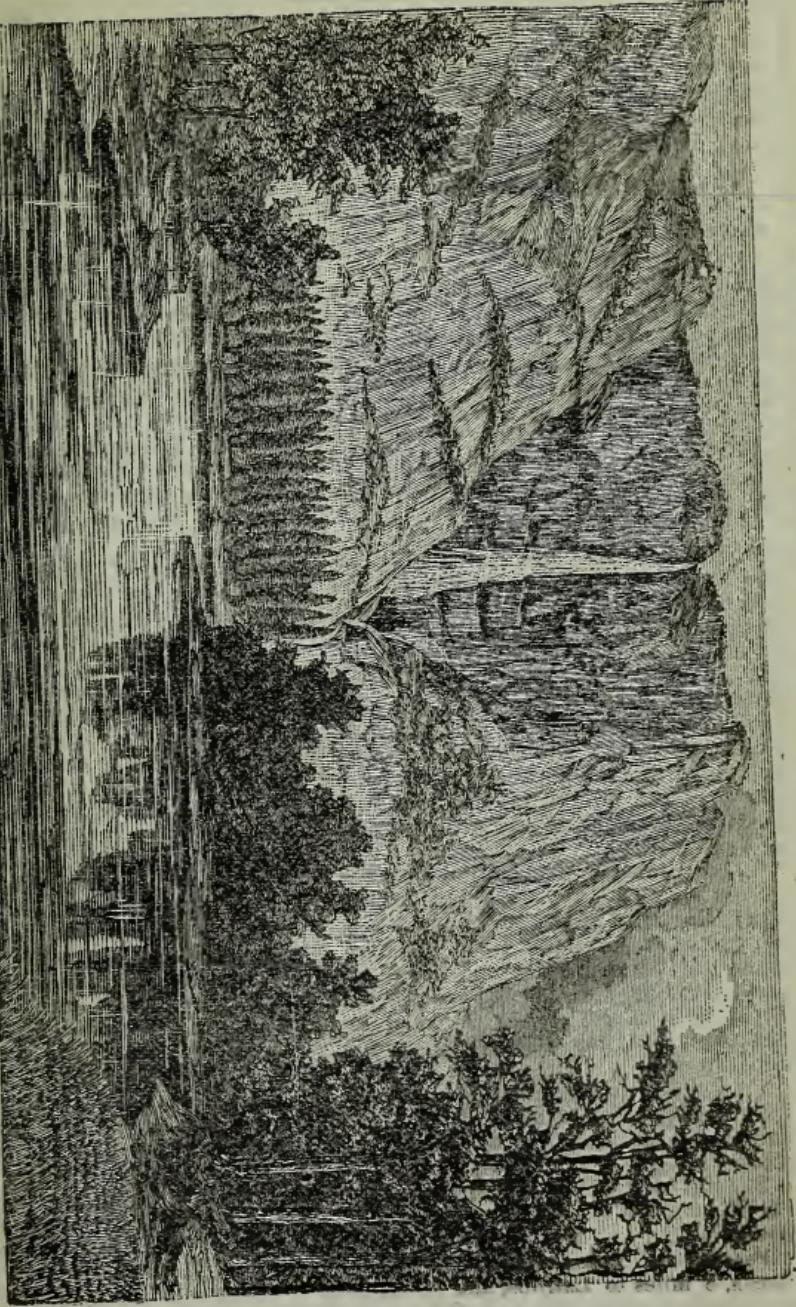
The U. S. arsenals and barracks are located near the town, forming an interesting feature to the visitor. Benicia is justly celebrated for her excellent schools, public and private. The only law school in the State is located here, and also a young ladies' high school or seminary. It is connected by steamers with Suisun, Sacramento, Stockton, and San Francisco, by stage with Vallejo, 7 miles west, over the rolling hills; and by hourly ferry, 2 miles distant, across the Straits, with

MARTINEZ,

The county seat of Contra Costa county. This is a small town of about 600 inhabitants. One weekly newspaper, the *California Express*. The county is principally devoted to agriculture and vine culture, the vineyards being numerous, producing over 70,000 gallons of wine per annum. The Alhambra Ranch, two miles from town, owned by Dr. Strenzel, is thought to be the best for its size in the State. It contains over 30,000 grape vines, and 5,000 fruit trees. Its proprietor has been awarded a large number of medals and prizes for the "best cultivated farm," the "best fruit," and the "best native wine in California."

Passing on down the straits, we have a fine view of Vallejo, which lies to our right, near where we enter San Pablo Bay. Twenty miles more brings us to San Francisco.

But we must return once more to Sacramento,—and this time take our old seat in the cars of the Trans-Continental



Yo Semite Falls, 2,634 feet fall. Yo Semite Valley Route. (See page 200.)

Railroad, bound for "Frisco"—or the "Bay"—as the city of San Francisco is called by the older "Pilgrims," so

GOOD-BY SACRAMENTO.

The cars speed along on the very bank of the river, then through broad and well-cultivated fields 5 miles to

BRIGHTON,

the first station after leaving Sacramento. Elevation, 50 feet. The cars of the Sacramento Valley R. R.—managed by the Central Pacific Co.—run down on the same track as the Central to this station, where they branch off—let us step into them, and see where they go. Patterson's is 5 miles, Salsbury's, 6 miles, Alder Creek 3 miles, and 3 miles more brings us to

FOLSOM,

twenty-five miles north-east from Sacramento, in Sacramento county, on the south bank of the American River. Population about 2,000. The *Telegraph* is published here weekly. Vine culture is an important industry. Some of the finest vineyards in the State are near here, including the Natoma, which is celebrated for its fine quality of raisins and wine. To the north and east of the town, Placer mining is the principal business; to the south and west, farming and grazing.

There are extensive granite quarries in the vicinity. From the bed of the river near this point, large quantities of cobble-stones have been obtained, taken to Sacramento, and used in strengthening the levees around the city. Most of the cobble pavement in San Francisco was obtained from the same source.

Folsom is ornamented with shade and fruit trees, and has many fine public and private buildings, with magnificent scenery.

Regular stages leave for Coloma daily via Mormon Island, Salmon Falls, and Greenwood valley, 24 miles distant.

Passing on 7 miles brings us to White Rocks, 8 miles to Latrobe, and 11 miles to Shingle Springs, the end of the railroad, $48\frac{1}{2}$ miles from Sacramento. By

stage from Shingle Springs—which run daily—it is 12 miles to

PLACERVILLE,

the county-seat of El Dorado county, 60 miles east of Sacramento, at an altitude of 1,880 feet above tide—present population about 2,000.

Who has not heard of Placerville, El Dorado county. It was in this county, at Coloma, 8 miles northeast of the city, where the

FIRST GOLD DISCOVERY

was made, January 19th, 1848, by J. W. Marshall, in the mill-race of General Sutter. The announcement of this discovery caused the *wildest gold fever excitement ever experienced*, not only in America, but in every part of the civilized world.

The news of these rich discoveries sped with the wings of the wind, and thousands, yes, tens of thousands in the Atlantic States, left homes, friends, and all they held dear, to make their fortunes in this the new El Dorado. With many the excitement became intense. Ships, steamers, barks, brigs, and all manner of sailing vessels were chartered or purchased for a trip "around the Horn," and no sacrifice was thought to be too much to make to procure the necessary outfit for the expedition. Again, there were thousands who, choosing the land, boldly struck out towards the setting sun, to cross the—then almost unknown—trackless deserts, and pathless mountains. Horses, mules, and cattle were pressed into service, as well as all kinds of conveyances, while many started with hand-carts—propelling them themselves—upon which they packed their tools and provisions for the trip. Again, others started out on foot, with only what they could pack on their backs, "*trusting to luck.*" Very few, if any, had a thought of the privations to be endured, or the obstacles to be overcome. So anxious were they to arrive at the Land of Gold.

Those who came by water passed in at the Golden Gate and up the Sacramento, while those by land came pouring

over the Sierra Nevada mountains by natural passes, down—down into this beautiful valley, where a city of many thousands suddenly sprang into existence. From a "little unpleasantness" the place was first known as "Hangtown," but in 1852 it was changed to Placerville, which indicated at that time the nature of the mining done in the vicinity. Of the many thousands who started across the plains and mountains, hundreds died by the wayside, and were buried by their companions, while the greater number were "lost" by the hand of the friendly Indian, or, the hostile Mormon.—*Echo, Mountain Meadow.*

It has been estimated, and we think correctly, that could the bones of these emigrants be collected, and those of their animals, together with their wagons and carts, in one continuous line, between the Missouri River and the Pacific coast, since the rush commenced in 1848, they would be *more numerous and closer together* than the telegraph poles on the line of the Pacific Railroad across the Continent.

The early mining done about Placerville was by hand, the Pan, Rocker, and Long Tom; these have long since given place to the Quartz Mills—there are 32 in the county—and the Hydraulic process, by which nearly all the mining is now done.

Vine-culture and fruit-culture, is now the most important occupation of the people of the county. Fresh and dried fruits are shipped by the hundreds of tons, while the crop of wine and brandy produced the last year exceeds 300,000 gallons. Herr Schnell, a Prussian, is the founder and manager of a colony of Japanese, who have settled near the town and engaged in the cultivation of the tea plant. They have over 90,000 plants set out and growing finely; also, 75,000 mulberry trees, the latter to feed a new variety of silkworm, from which they expect extraordinary results.

Placerville contains a goodly number of schools, and churches of almost every denomination, including a "Joss House." The different secret orders are well repre-

sented, and a newspaper, the *Democrat*, which seems to be thoroughly devoted to home interests, makes its appearance every Saturday.

Placerville is situated in what is known as

THE FOOT HILLS,

as the chain of broken land is called, which lies between the Sierra Mountains and the plains, extending from Fresno county on the south through Tuolumne, Calavaras, Amador, Eldorado, Placer, Nevada, Yuba, Butte to Tehama on the north, comprising nearly one-fourth of the arable land of the State. The soil is altogether different from that of the valleys, being generally of a red gravelly clay and sandy loam. In the little valleys which are found among these hills, the soil is generally a black loam, the product of the mountain washings. Experiments, however, have decided the fact that these foot hills are the natural vineyards of California. In Eldorado and Placer counties, on these sandy foot hills, are now the finest vineyards in the State, from which are manufactured fine wines and raisins. Here among these hills are as cosy homes as one could wish to have, where grain, vegetables and all kinds of fruit are raised in abundance, while thousands of acres are lying vacant, awaiting the emigrant.

The mulberry tree and silkworm are cultivated to some extent in the foot hills, and this branch of industry is lately receiving considerable attention.

But we must return to the TRANS-CONTINENTAL, which we left at Brighton, 5 miles south of Sacramento. Four miles to

FLORIN,

An unimportant station. Elevation, 42 feet. The traveler has possibly noticed several windmills along the road before arriving at this station. The CALIFORNIA WINDMILL is a great institution in its way. They seem to have been brought to a greater state of perfection on this coast than anywhere else. From this place we will find them to increase until we get to the "Windmill City," as Stock-

ton is often called, where they can be seen in great numbers in every direction. Many times the water is pumped into a reservoir built on the tops of the houses, resembling a cupola, from which pipes take the water to the different rooms throughout the house and grounds; the waste water is conducted into the gardens and fields for irrigating purposes. These mills are numerous in San Francisco and throughout the State.

Seven miles more to

ELK GROVE,

Elevation, 53 feet. The beautiful valley through which the road passes is spreading out before us, and we begin to realize that nature has done sufficient for this "sunset land," to entitle California to all the praise that has been bestowed upon her.

MCCONNELL'S

Is a small station 3 miles from Elk Grove. Elevation, 49 feet. Before reaching the next station, we cross Cosumnes river, which rises in the mountains to the northeast. The bottom lands are very wide, and covered with white oaks. This stream gets high in the spring, but very low in the summer. Eight miles to

GALT,

Elevation, 49 feet. A regular stage line leaves this place daily for the

CALAVERAS BIG TREES.

Seventy miles distant. (See map of route, further on.) There has been up to the present time ten "Big Tree Groves" discovered on the western slope of the Sierra Nevada mountains, numbering from 92 to 1,000 trees in each, and ranging in height from 250 to 321 feet, with a circumference at the ground of from 60 to 95 feet each.

The largest ever discovered is called the "Father of the Forest," now prostrate, and measures 435 feet in length, and 110 feet in circumference. It is in the Calaveras grove. The elevation of this grove above tide is 4375 feet. The trees number 92, ranging from 150 to 321 feet in height. The most notable are the "Father of the Forest," as above stated; the "Mother of the Forest," 321 feet high, 90 feet in circumference; "Her-

cules," 320 feet high, 95 feet in circumference; "Hermit," 318 feet high, 60 feet in circumference; "Pride of the Forest," 276 feet high, 60 feet in circumference; "Three Graces," 295 feet high, 92 feet in circumference; "Husband & Wife," 252 feet high, 60 feet in circumference; "Burnt Tree," prostrate, 330 feet long, 97 feet in circumference; "The Old Maid," "Old Bachelor," "Siamese Twins," "Mother & Sons," the "Two Guardsmen," and many others range from 261 to 300 feet in height, and from 59 to 92 feet in circumference. Of over 350 Big Trees in the Mariposa grove, 125 are from 250 to 350 feet in height, and 40 feet in circumference. The "Rambler" is 250 feet high, and 102 feet in circumference at the ground.

The route from Galt is, via Ione City, 24 miles, 10 more to Jackson, 3 to Amador, and 4 more to —, 41 in all.

MOKELUMNE HILL,

County seat of Calaveras county. Population 1,200. This is one of the early mining towns of the State. Placer mines were worked as early as 1848, and are worked to some extent at the present time; but quartz mining and agriculture are the principal occupation of the people. It is a pretty little town; the streets are ornamented with shade trees on each side, and has some beautiful gardens and private residences, with good schools and churches, several good hotels, and one weekly newspaper, the *Chronicle*, the oldest paper in the State. Stages connect the place with all the principal mining towns in the vicinity, and with the Big Tree grove, 29 miles distant. The hotel accommodations are ample at the grove, and in fact at all the groves and in Yo-Semite valley. Returning to Galt, 8 miles more brings us to

MOKELUMNE STATION.

(Pronounced Mokel-m-ne.) Elevation, 55 feet. To the southward, away to the right, 35 miles distant, can be seen

MOUNT DIABLO,

which rises clear and grand from out the plains, an unerring pilot to those who wandered across these once trackless

plains, that now are teeming with life and industry. It is situated in the Contra Costa Range of mountains, and is the meridian point in the land surveys of the State. Elevation, 3,876 feet. The view from the summit includes the country and towns around San Francisco, San Pablo and Suisun bays, and the valleys of the Sacramento and San Joaquin rivers. It is reached by steamboats from either San Francisco, Stockton, or Sacramento. From Mokelumne we pass along through fine broad bottom lands, dotted here and there with white-oak trees, which at a distance appear like an old New England apple tree. It is 13 miles to the next station; but just before reaching it, on the right, that large building is the STATE INSANE ASYLUM. The grounds devoted to the use of the asylum occupy 100 acres. The first building in view is the male department; the second, the female. We are now in the suburbs of the third commercial city in the State.

STOCKTON.

County seat of San Joaquin county. Population 10,033. Elevation, 23 feet. The city was named in honor of the old naval commodore of that name, who engaged in the conquest of California. It is situated on a slough, or small bay, of the San Joaquin river, at the head of navigation. Yet steamboats of light draft ascend the river (San Joaquin) 275 miles farther. Stockton is situated in the midst of level plains, celebrated for their great yield of grain. It is the centre of an immense grain trade, most of which is shipped to foreign ports. In early times, the only trade depended upon for the support of the city was derived directly from the working of the mines to the south and east. This trade is still retained; but compared with the tremendous grain trade which has sprung into existence within the last few years, sinks to a unit. The city has many beautiful public and private buildings, 13 churches, 14 public and many private schools, is lighted with gas and well supplied with water, the latter from an artesian well 1,002 feet deep, which discharges 360,000 gallons

per day, the water rising 10 feet above the city grade. There are several good hotels. The "Yo-Semite" and "Lafayette," the latter, on the *European plan*, are the most prominent. The newspapers are the *Republican*, daily and weekly, democratic in politics; the *Independent*, daily and weekly, republican; the *Herald*, daily, and the *Gazette*, weekly, are both independent in politics, and the *Observer*, weekly. The private residences and gardens of the citizens are certainly very tastefully ornamented with all kinds of vines, shrubbery, and flowers.

The soil around Stockton is "adobe," a vegetable mould, black and very slippery and soft during the rainy season. This extends southward to the Contra Costas and west about five miles, where the sand commences and extends to the river. Stockton until the last year was the starting point for several stage lines to the towns to the eastward—to the Big Trees, Yo Semite, etc.; but the stages have given place to the Stockton & Copperopolis and the Visalia Railroads, which now runs to Milton, 30 miles east. Stages leave Milton for all important towns and mining camps. Some tourists take this route to the Big Trees and Yo Semite Valley. Coaches leave on arrival of trains passing through Copperopolis, Chinese Camp, Coulterville, to within a few miles of Yo Semite Valley, when saddle animals convey the tourists into the valley. Distance, by rail, from Stockton, 30 miles; by stage, 75 miles; saddle, 3 miles. Total, 108 miles.

This is a great country for rapid changes. Where to-day there are only stages, to-morrow there may be palace cars. So that it is almost impossible for us to keep up with the times.

Leaving Stockton, 8 miles bring us to

LATHROP.

The junction of the "VISALIA DIVISION" of the Central Pacific Railroad, which is the *new route* to the Yo Semite Valley and the Big Trees. Near this station, at "Wilson's Landing," the Central Co.

commenced, February 1st, 1870, laying the track of a branch road up the

SAN JOAQUIN VALLEY.

(Pronounced, San Waw-keen.) This road will open up a tract of country larger than many kingdoms of the old world, and far richer, extending to Visalia, county seat of Tulare county. The amount of grain and stock raised in this valley, and its hundred of smaller ones tributary to it, is almost incredible for a country so recently settled. There are millions of acres of government land *laying idle, awaiting the emigrant*, as good land as the sun ever shone upon, which can be pre-empted at \$1.25 per acre, or taken up under the Homestead Act. The valley is over 250 miles in length, with an average width of 30 miles; its greatest width, 140 miles. It embraces portions of nine counties, and, with the numerous tributary valleys, comprises over six millions of the richest agricultural lands in the State, together with one million of "Tule" and salt marsh land, which, when reclaimed, proves to be the most fertile land in the world. To the above might be added six millions acres of adjoining grazing, mineral, and valuable mountain lands, and you have a country capable of sustaining some hundreds of thousands of inhabitants. The foot hills, and in fact the whole country, abound in wild oats, which are indigenous to the soil, upon which stock thrive and fatten remarkably, and are cut, when green, for hay. Wheat, barley, oats, and in fact all kinds of grain, and every description of vegetables, fruit and flowers, are produced in abundance. Experiments in cotton and tobacco have proved a success. The climate is very desirable, pleasant and invigorating.

This road will open up the country reaching to Visalia, the county seat of Tulare county, over 250 miles, affording ready means of transportation for the grain and stock raised in this immense valley; and, as it will ultimately be a connecting link of the Southern Pacific Railroad, north and south, it must prove of untold advantage to the country opened up, to the State at large, as well as to

the enterprising company constructing it. At the time we write, April 25th, 1872, the road is completed, and cars running to MERCED, on Bear River, 57 miles south. The company is pushing ahead the work, and expect to have the road completed in a few weeks to

VISALIA,

about 125 miles further. This town is the county-seat of Tulare County, containing a population of near 1,600. It is situated in the midst of the most fertile land in the State, on the Kaweah River. The country round about presents to the eye a beautiful appearance. Large oaks cover the plain in every direction, and orchards, gardens, vineyards, and well-cultivated fields are to be seen on every hand.

The visitor to this State will hardly wish to leave it until he has visited the wonderful

YO SEMITE VALLEY

and the

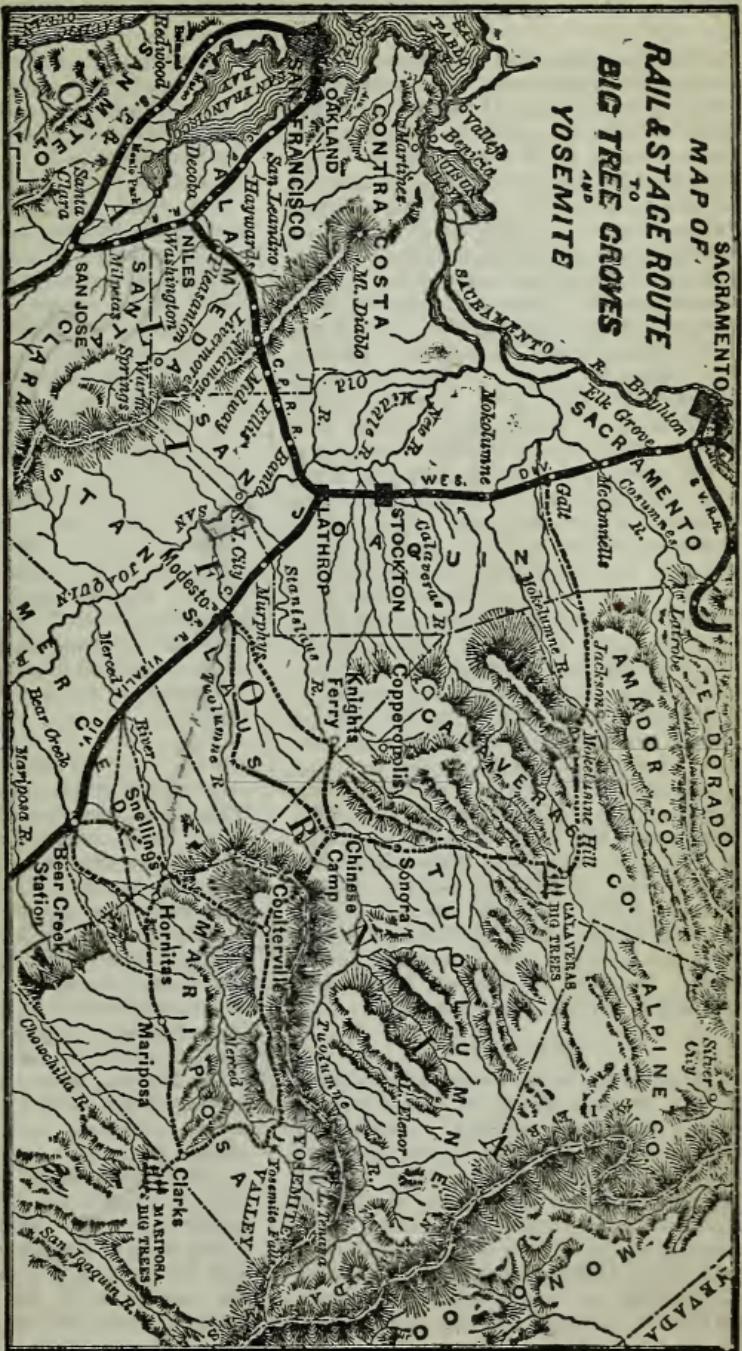
BIG TREES

The grandest scenery on the American continent, if not in the world, is to be seen in the Valley of the Yo Semite (pronounced Yo Sem-i-te; by the Indians, Yo Ham-i-te). This valley was first discovered by white men in March, 1851, by Major Savage. It is about 8 miles long, and from one-half to a mile in width. The Merced river enters the head of the valley by a series of waterfalls, which, combined with the perpendicular granite walls which rise on either side from 2,000 to 6,000 feet above the green valley and sparkling waters beneath, presents a scene of beauty and magnificence unsurpassed, except possibly in childhood's fairy dreams.

Here is *majesty! enchanting! awe inspiring! indescribable!* The lofty cloud-capped waterfalls and mirrored lakes, the towering perpendicular granite cliffs and fearful chasms, strike the beholder with a wondering admiration impossible to describe.

We have often desired to take our readers with us, in a pen and pencil description of this most remarkable valley, and the "Big Trees," but in view of

**MAP OF,
RAIL & STAGE ROUTE
TO
BIG TREE GROVES
AND
YOSEMITE**



CAPPING LAKE TAHOE.

The project for tapping Lake Tahoe, on the top of the Sierra Nevada, and taking its waters in a grand stream down the mountain sides and through the great central plains of California to San Francisco, distributing it for mining, irrigating and town purposes along the way, and at the end furnishing San Francisco with abundance of water for all uses—this, perhaps the most magnificent water scheme ever attempted, seems to be seriously put in the way of execution. The company is formed; Congress has conferred the necessary rights upon it; San Francisco welcomes it, and the route is already laid down.

There is to be at first a tunnel of three miles, and for twenty-five miles the waters will be carried along and in the north fork of the American river. The use of the water for the mining purposes, along and among the foot hills through which it is to be carried, is relied upon as a chief return for the cost of the enterprise. A large extent of rich placer mining territory now remains bitterly neglected or but partially improved for the lack of such a generous and constant water supply as this will be.

our limited space, the magnitude of the undertaking, together with our conscious inability to do justice to the subject, we have contented ourselves by giving an illustration of the Great Yo Semite Falls, with a map of the surrounding country—showing the relative position of the valley, trees, and adjoining towns to the railroad—the different routes, with a few statistics of the most notable objects of interest. To those of our readers who desire further information, we recommend "Scenes of Wonder and Curiosity in California," by J. M. Hutchings, of Yo Semite. This book is a thorough guide-book of Yo Semite Valley, profusely illustrated, vividly describing every object of interest step by step, with facts and figures, telling just what the tourist wants to know. The world-renowned Houseworth, of San Francisco, will have a branch house and an artist in Yo Semite Valley, who will photograph visitors in connection with the falls and the wonderful scenery. We bespeak for the enterprise a universal support; it is just what is wanted.

The most notable falls in Yo Semite Valley are—the Ribbon, 3,300 feet fall; the Upper Yo Semite, 2,634 feet (see illustration); the Bridal Veil, 950; the Nevada, 700; the Lower Yo Semite, 600; the Vernal, 350 feet. The South Doom is 6,000 feet high; the Three Brothers, 4,000; Cap of Liberty, 4,240; Three Graces, 3,750; North Doom, 3,725; Glaciers Point, 3,705; El-Capitain, 3,300; Sentinel Rocks, 3,270; Cathedral Rocks, 2,690; Washington Tower, 2,200; and the Royal Arches, 1,800 feet high.

ROUTES.

By reference to the accompanying map, it will be seen there are several stage routes from the railway. (*See dotted line.*) From Modesto there are two routes—one *via* Knight's Ferry, on the Stanislaus river, 20 miles, thence to Chinese Camp, 14 miles; the other route follows up the Valley of Tuolumne river to Chinese Camp, 33 miles (from Chinese Camp a line of stages run to the north to Sonora, 12 miles; Murphy's Camp, 16

more; then 10 to the Big Trees of the Calaveras Grove—total, 71 miles). From Chinese Camp to Coulterville, 23 miles—total from Modesto, 56 miles. From Coulterville it is 56 miles by stage and 3 by saddle to Yo Semite Valley. Ten miles from Coulterville, at Marble Springs, is Bower Cave; 16 miles from Coulterville is Black's House, where "Pilgrims" can remain over night. From Hazel Green—elevation 6,699—a fine view of the great San Joaquin Valley can be obtained. At Crane Flat, 34 miles from Coulterville, a trail leads off to the Tuolumne Grove of Big Trees, one mile distant. There are 24 trees, the largest being 36 feet in diameter. The first view of Yo Semite is had at Valley View, 45 miles from Coulterville, and 12 miles from Yo Semite.

There are two routes from Merced City—one is known as the "Coulterville Route" via Snelling, a small town of 200 inhabitants. The distance by this route to Yo Semite Valley is 92 miles—89 by stage and 3 by saddle.

The other route leads directly to the town of

MARIPOSA,

County seat of Mariposa county, 45 miles. This town contains about 1,000 inhabitants. Once noted for its rich placer mines, but now quartz mining is the principal occupation of the people. In Bear valley are the mills and mines (or a portion of them) belonging to the "Las Mariposa Grant," or the Fremont estate, as it is usually called. The Benton mills are on the Merced river, about two miles from the town, reached by a good dug road, down a very steep mountain.

In Mount Ophir and Princeton, a mining town near by, are large quartz mills, belonging to the estate, and extensive mines.

From Mariposa 25 miles brings us to Clark's, where the traveller will take saddle-horses the balance of the way. (Here a trail branches off to the Mariposa Grove of Big Trees, 427 in number, the largest being 34 feet in diameter.) From Clark's the trail leads through

Alder Creek, Empire Camp, and the famous "Inspiration Point." From the latter is obtained the first grand view of this wonderful valley, lying 4,000 feet below the "Point." Distance from Clark's to the valley, 20 miles. Total from railroad to Yo Semite by this route, 94 miles. It will be seen the saddle route is the shortest, as well as the through route; but we express no preferences, as each has its own peculiar attractive features. Should the tourist enter the valley by one route, and return by another, little of the scenery will be overlooked.

* * * * *

Returning to Lathrop, 4 miles brings us to

SAN JOAQUIN BRIDGE,

Over the river of that name. Elevation, 36 feet. Here the cars come to a full stop before crossing, to be sure to guard against accidents—as the bridge has a "draw" for the accommodation of the river boats. This company has a rule for all their employees, and a "GOLDEN" ONE IT IS, that "*In case of uncertainty, always take the safe side.*" This rule may be the same on all other roads, but we think it is better observed; and we know the number of "accidents" reported are much less on the roads operated by this company—in proportion to the miles—than on any other in America; and we propose to account for it in the following manner:—The road is constructed with good materials, and in the most substantial manner, with all its equipments of the first class. The officers are thorough practical men, who never discharge an employee, on any consideration, who has proved to be a competent man for his position, simply to make room for a favorite, or a worthless "cousin."

Crossing the bridge, the long range of the Contra Costa mountains looms up in the distance directly ahead, and extending a long distance to the right and left on either hand, as though to effectually stop our progress. We cannot see any place to get through or over them, yet we are sure San Francisco is on the other

side. Passing on over a broad bottom, the soil of which is a sandy loam, and very deep, for 4 miles, we arrive at the new town of

BANTAS.

Elevation, 30 feet. Stages leave on arrival of trains for Point Timbers, 28; Antioch, 36; and Hill's Ferry, 40 miles.

After leaving this station, we have witnessed, on several occasions, by looking away to the right, that curious phenomenon, the mirage, which is often seen on the desert. [See description, page 149.] The next station, 5 miles distant, is

ELLIS.

Situated in the midst of a beautiful valley, which is rapidly settling up. The coal mines of Corral Hollow are 14 miles distant from this station to the southeast, connected by rail track. The Central Co. use large quantities of this coal—besides transporting it to San Francisco, and other cities and towns. Since leaving the last station we have gained altitude—this station being 76 feet elevation. Another engine will be attached here, as the grade increases rapidly, after leaving this station, until we get to the summit of the mountain.

MIDWAY,

formerly called "Zink House," is 9 miles from Ellis. Elevation, 357 feet. Soon after leaving the station we enter the bluffs, pass through deep cuts and over high fills, our two iron horses puffing and blowing furiously as they labor up the heavy grade. These bluffs are heavy sand, and almost destitute of vegetation. To our right can be seen the old wagon road, but now almost deserted. Still upward, and onward, the long train thundering around this jutting point, and over that high embankment, twisting and turning, first to the right and then to the left, like some huge serpent, while the bluffs seem to increase in height, and the canyon narrower and darker at every turn, until, at last, we are plunged into total darkness, and the tunnel of Livermore Pass. This tunnel is the only one on the road from

Sacramento to San Francisco, is 1,116 feet long, supported by heavy timbers. [See Illustration.] Passing through this canyon, we arrive at

ALTAMONT,

seven miles from Midway. Elevation, 740 feet.

The train is now rapidly descending through a narrow canyon, down into one of the loveliest little valleys in the whole country, cross a long bridge, and 8 miles from the last station we arrive at

PLEASANTON.

This town contains about 500 inhabitants, and is beautifully situated in the midst of the valley—surrounded by high mountain ranges—and is rapidly improving. Elevation 351 feet.

Leaving the station, the mountain again looms up directly ahead, and looks to be impossible this time to get through; but soon the train passes around or through several mountain spurs, and emerges into a narrow canyon, down which ripples the sparkling Alameda creek. The bluffs on each side are steep, and covered with scrub oaks, wild oats, and bunch grass. Live oaks, with long, drooping, moss-covered boughs—some very large—grow on the banks of the creek, presenting at a distance the appearance of an apple-tree loaded with fruit. On we go, down, down, first on one side the creek, then on the other, the bluffs drawing in close on both sides, through deep cuts, over high bridges with rapidly changing scenery on either hand, when the engine shrieks a signal and dashes past the old San Jose Junction station—the track of which can be seen on the left. On, on, past the old "Vallejo Mill," the track curves to the westward, and 11 miles from the last station arrive at

NILES.

Elevation, 86 feet. From Livermore Pass we have been rapidly descending, and now we are in the valley which continues to San Francisco Bay,

Niles is situated in the thickest settled portion of Alameda Valley, surrounded by the finest lands in the State of California, and will, at no distant day, be a

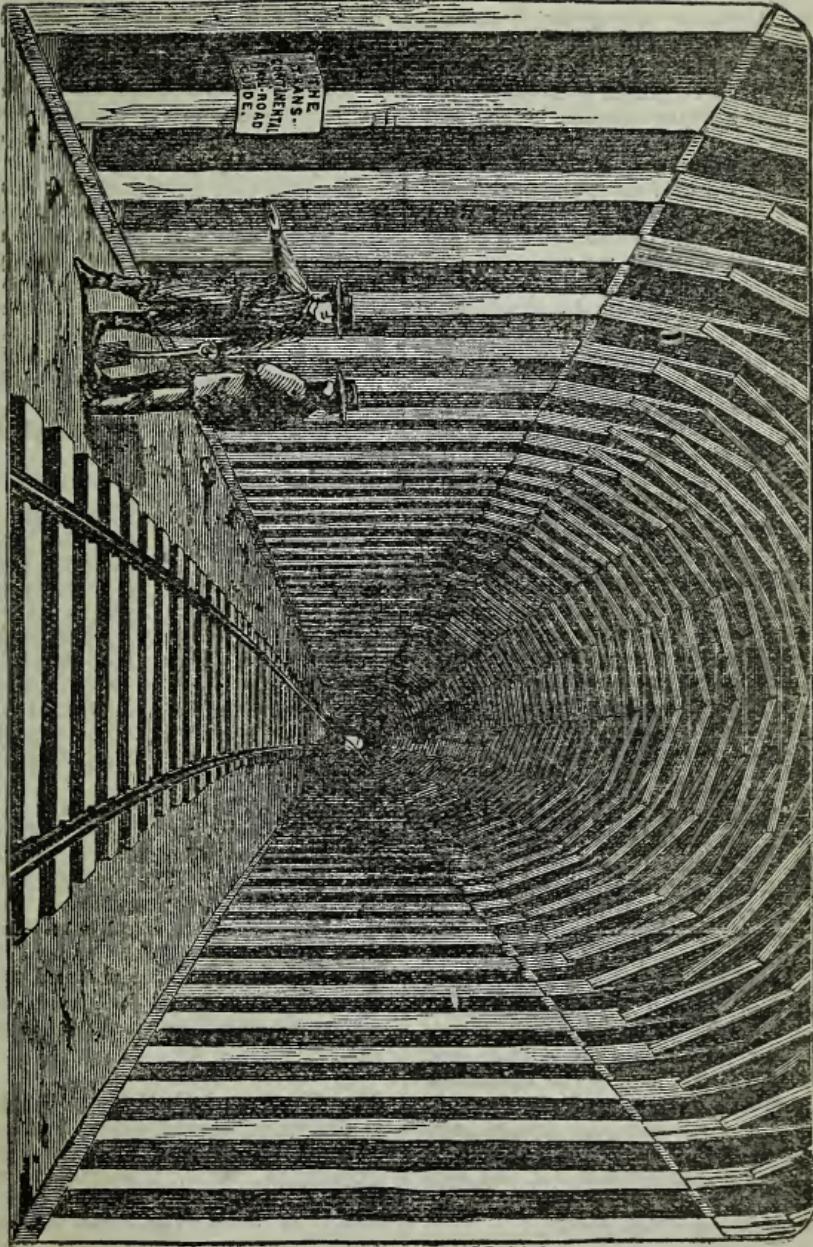
place of considerable importance. Seven miles to the south, by rail, are the noted Warm Springs of Alameda county.

Niles is now the junction of the San Jose branch which runs through the valley of Alameda, around the head of San Francisco Bay. It is—but let us go and see. "All abor'd." The first station is Washington, 3 miles; next, 4 miles, the WARM SPRINGS, where the traveler will find ample accommodations for a pleasant sojourn. These springs are situated a short distance from the station, in a quiet little valley among the foot-hills, rather retired, surrounded by attractive scenery. The waters are impregnated with sulphur, and are highly spoken of for their medicinal qualities. From the Springs it is 4 miles to Milpitas, and 7 more to

SAN JOSE CITY,

The county-seat of Santa Clara county. Population, 9,089 (pronounced San O-za). It is the largest town in Santa Clara Valley, and in population the fifth in the State. It was first settled by the Spanish missionaries in 1777. The city is lighted with gas, the streets are macadamized, and ornamented with rows of shade trees on each side. Artesian wells, and the "California Wind Mill," together with a small mountain stream, abundantly supply the city with good water. The *Alameda*, or grove, was planted in 1799. It is by far the prettiest grove of planted timber in the State, and by many people it is claimed that San Jose is the prettiest city in the State. It is certainly one of the best improved, and there are none more beautiful. Its orchards, vineyards and shade trees; its fine private and public buildings, and the delightful climate of the valley, render it a favorite place of summer resort.

San Jose, and Santa Clara, 3 miles distant, are noted for their educational institutions, where some of the finest in the State are located. The convent of Notre Dame, the San Jose Institute, the State Normal School, and the new building of the University of the Pacific, Methodist, Female Seminary, Methodist,



Tunnel, Livermore Pass.—(See page 204.)

and the Catholic Collegiate Institute, stand as monuments to attest a people's integrity and worth.

San Jose has 11 church edifices—ample public and private schools, hotels, and newspapers. The *Mercury*, weekly, *Independent*, daily and weekly, *Patriot*, daily, and *Argus*, weekly, are published here. The city is connected by railroad with Gilroy, 30 miles south, and San Francisco by two lines—the one we came on, and the other via the peninsula direct, through the thickly settled and well cultivated San Mateo country; distance 50 miles in a west of north direction; by stage 10 miles to CONGRESS SPRINGS. These springs are resorted to by those suffering with pulmonary complaints. Stages also run to NEW ALMADEN, 15 miles distant, noted for its medicinal springs, chief among which, and the most valued for its medicinal qualities, is the

NEW ALMADEN VICHY WATER.

Such a demand has been made for this water that it is now put up in bottles, and meets with an extensive sale throughout the State, and wherever it is known it is very generally recommended by the medical faculty. Near this place are the famous

QUICKSILVER MINES

of New Almaden. These mines are very extensive, and should be visited by the curious. They were discovered by an officer in the Mexican service during the year 1845, who, seeing the Indians with their faces painted with vermillion, bribed one of them, who told him where it was to be found. The following year several English and Mexicans formed a company for working the mines, large sums of money were expended, and many difficulties had to be overcome, but finally, by the introduction of important improvements the mines have proved to be very valuable. The different mines furnish employment for, and support from, 1,000 to 1,500 persons. Nearly all the miners are Mexicans.

It is supposed that these mines were known and worked by the native Indians

of California, long before the country was known by white men. They worked them to procure the vermillion paint which the ore contained, for the purpose of painting and adorning their villainous persons, and to "swop" with the neighboring tribes.

We will now return to San Jose, and step into the horse-cars on the beautiful ALAMEDA AVENUE, which is bordered on each side with two rows of poplar and willow trees, planted by the early Jesuit missionaries nearly 80 years ago.

Behind these trees are elegant cottages, beautiful orchards, nurseries, and gardens, containing almost every variety of vegetables, fruit and flowers.

Passing on through this shady bower 3 miles, we arrive at

SANTA CLARA,

Situated near the centre of Santa Clara valley. This valley is one of the loveliest in the world, possessing a soil of surpassing richness. It is celebrated for the salubrity of its climate, the excellence and variety of its fruits, is thickly settled, and as a wheat-growing valley it has no superior. In point of improvements, good farm houses, orchards, vineyards, etc., it has few, if any equals.

Santa Clara is a thrifty village with about 3,500 inhabitants. It was originally founded by the Jesuits in 1774. The churches and schools are ample—the latter we have alluded to in connection with San Jose. The *Index*, and the *Neus*, both weekly newspapers, are published here. Santa Clara is on the railroad between San Francisco and Gilroy, 47 miles from the former, and 33 from the latter. A fine stage road extends across the coast range 30 miles distant to

SANTA CRUZ,

The *Newport* of California. Santa Cruz is the county-seat of Santa Cruz county, situated on an arm of Monterey Bay. Population, 2561, connected by steamer with San Francisco, 77 miles, Monterey, 23 miles, San Luis Obispo, 132 miles; by stage to Pescadero, 35 miles, and other adjoining towns. It is a noted

summer resort for sea bathers, who find good accommodations in the shape of hotels, bathing houses, etc. Schools and churches are flourishing. Two newspapers, the Santa Cruz *Sentinel* and *Times*, both weeklies, are published here.

Returning to Niles, we continue our journey. Skirting the high bluffs at our right, with beautiful fields stretching out at our left for three miles to

DECOTO,

Elevation, 71 feet. This is a new town, and promises at this time to be one of unusual importance as a suburban residence for the merchant princes of San Francisco.

The lots are very large, with wide avenues, which are to be ornamented with rows of evergreen trees, rumor says, to the extent of from 40,000 to 50,000, and watered from living springs, which flow abundance of water, a few miles to the east in the mountains. To the left the valley stretches away ten miles to San Francisco Bay, dotted here and there with comfortable farm houses, and on all sides extensive and well cultivated fields. On a clear day the city of San Francisco, 26 miles distant, can be distinctly seen a little to the left, ahead of the train, across the bay.

Rolling along down this beautiful valley, we can see on our right, nestling in beside the mountains, the town of HAYWOOD, the terminus of the Alameda Railroad. It is 22 miles from San Francisco. Eleven miles brings us to

LORENZO,

A small station, elevation 32 feet. 3 miles from

SAN LEANDRO,

County-seat of Alameda county. Population, 426; elevation, 48 feet. The town is situated on San Leandro creek, with good schools and churches, and one weekly newspaper, the *Gazette*. Connected by San Francisco & Alameda R.R. with Haywood, 11 miles; Alameda, 6 miles.

Alameda county is noted for its peculiarly rich and fertile soil, which seems especially adapted to the cultivation of

all kinds of vegetables, the size and weight of which are truly marvelous. Carrots grow 3 feet long, and weigh 35 lbs.; cabbages, 75 lbs.; onions, 5 lbs.; watermelons, 85 lbs.; pumpkins—well, no scales can weigh them; pears, 3½ lbs.; cherries, 3 inches in circumference; strawberries, 2 ounces; and beets—not "Dead beats"—200 lbs.; which, we should say, beats all, but Greeley says, "Beats the Devil!"

Grain yields are enormous. In Livermore Valley are some of the finest fields of grain in the State; the yield from a single acre often being 80 bushels. In this country are fine quarries of granite and limestone suitable for building purposes. Most of the brown stone used in San Francisco is obtained here.

Passing on, the traveler will note a RACE TRACK on the left, where some of the best blooded stock in the State can often be seen exercising. Five miles more and we arrive at

MELROSE.

Here the train comes to a full stop—then crosses the track of the Alameda Railway—to guard against accidents. Elevation of the station, 18 feet. Four miles to our left is the town of

ALAMEDA,

in Alameda county. Population, 1,557. It is situated on the eastern shore of San Francisco Bay, 12 miles from San Francisco 5 miles from Alameda Point; connected with San Francisco by ferry-boats, and by the San Francisco & Alameda Railroad; with the Central at Melrose and Haywoods, 10 miles distant. It has good schools and churches, and elegant private residences.

The town abounds in beautiful groves of oaks. The Encinal and other fine parks have been laid out and improved. It is a favorite resort of picnic parties from San Francisco. The *Encinal* and *Home Journal* weekly newspapers are published here.

Returning to Melrose, 2 miles bring us to

BROOKLYN.

Formerly San Antonio. It is on the

eastern shore of San Francisco bay, separated from the city of Oakland by an arm of San Antonio creek, but connected by bridge. Both Brooklyn and Oakland are situated on ground which slopes gradually back from the bay for several miles to the foot hills, or base of the Contra Costa mountains, in their rear. Upon this sloping ground are built many elegant "out of town" residences of the merchants of San Francisco, which command a beautiful view of their city, the bay, the Golden Gate, and the surrounding country. Population of Brooklyn, about 2300. Cars and steamboats run regularly between the city and San Francisco. A short distance to the northeast of the city, in a canyon of the mountains, are situated the "PIEDMONT WHITE SULPHUR SPRINGS." These springs are strongly impregnated with sulphur, and it is claimed that they possess medicinal qualities. But why Californians should be sick, or drink sulphur water, when they have such good wine, and so much of it, we are unable to understand.

The only cotton mill on the Pacific coast is located at this place—the "Oakland Cotton Mills." Their principal business at present is the manufacture of burlaps for bags and wool-packs from "jute" imported from the West Indies. When their works are completed, they will employ 250 operatives. Schools and churches are numerous, and one weekly newspaper, the *Independent*. We now cross the bridge, and pass along just on the edge of the bay, with the suburbs of Oakland on our right, three miles to Broadway station,

OAKLAND.

What Brooklyn, N. Y., is to New York City so is Oakland to the city of San Francisco. The name of the city is significant of its surroundings, as it is situated in an extensive grove of evergreen oaks, with orchards, parks, gardens and vineyards on every side. Nestling amidst this forest of perpetual green, can be seen, peeping out here and there, the magnificent villa of the nabob, the substantial residence of the wealthy merchant, and the neat and tasteful cottage of the "well

to do" mechanic, who have been attracted here by its grand scenery, mild climate, and quiet surroundings, being free from dust, noise, or the bustle of a large city. Oakland is lighted with gas, has broad, well-paved streets, is abundantly supplied with water from a creek five miles distant, supports several horse railroads and three daily newspapers, the *Transcript*, *News*, and *Termini*. Churches are numerous. Most of the secret orders are well represented. Public and private schools are ample. The higher educational institutions comprise the University of California, the State University School, the Female College of the Pacific, the Oakland Military School, the Oakland Female Seminary, and the Convent of "Our Lady of the Sacred Heart." The University of California, is now occupying premises temporarily until their new building is finished, which is in course of erection at Berkly, four miles distant. It is to be constructed throughout of brick and iron, *they say*, *earthquake proof*. It may be; but, gentlemen, remember the "tower of Babel!"

Near the university, towards the bay, is located the State Asylum of the Deaf, Dumb and Blind. It is a massive stone building, three stories high, 300 feet above the bay, and commanding a very extensive view. Oakland is the fourth city in population in the State, being about 11,104, and rapidly increasing. We now continue on through the city, two miles to

OAKLAND POINT.

To the left of the track at this place are the usual round-houses, machine and repair shops of a division. Until the building of a pier at this place, the only harbor of Oakland was to the eastward, at the mouth of San Antonio creek, the water to the westward being quite shallow for a long distance from shore.

As this "Point" is the *extreme* western foot of available land to build a railroad upon, "Old Fogey" would naturally say, "Here must be the terminus! We can go no farther!" But "Young America," not content with spanning a continent with iron rails, says, "No! We are going

to China! ALL ABOARD!" And before "Old Fogey" could realize the situation, a finger flashes the lightning to the timber lands of the Sierra Nevada mountains, 250 miles away, and down come long trains of cars, 40 miles an hour, loaded with timber, lumber and piles, and the swarms of laborers are soon laying the track "over the waters" towards the setting sun.

Passing on down the pier, "which I wish to remark, and my language is plain," that for piles that are large, and timbers that are strong, the pier that we're on is peculiar.

Looking over the broad expanse of water on our right, the mountains of Marin county loom up in the distance, the highest point being Mount Tamalpais, 2,604 feet high. Half a mile down the pier we come to where the through freight cars come in on the left. This track branched off from the main track, which passes through the city of Oakland, a few miles to the eastward, and is built on piles over the shoal water skirting the city front to this place, where the tracks again unite.

Down the pier rolls the long train, directly out into the bay, $2\frac{1}{4}$ miles to the ferry-boat, which conveys passengers over the waters three miles to the city of San Francisco.

LOOK AT THE PIER.

It is built with the best materials, and in the most substantial manner, with double track and carriage-way extending the whole length. There are three slips. The one to the north is 600 feet long, and will accommodate the largest ships, the water being $26\frac{1}{2}$ feet in depth at low tide and 32 at high tide. On each side of the slip are erected large warehouses, one of them 600x52 feet, the other 500x52 feet, with tracks running through for the purpose of loading and discharging.

The next slip south was built to accommodate the "THOROUGHFARE." This steamer was designed expressly for taking freight cars across the bay. She once made the trip across the bay with 18 loaded freight cars, running a distance of

$3\frac{1}{2}$ miles in 22 minutes. She is 260 feet on deck, 38 feet beam, with flat bottom. The engines are 200 horse power; cylinders 22x84, and were constructed at the company's shops in Sacramento.

The south slip is the passenger slip, where lands the regular ferry-boat between Oakland and San Francisco. On each side of this slip is a passenger-house—one 300x70 feet, the other 450x50 feet. In these buildings are located the division offices, E. C. Fellows, Esq., Supt. In these buildings will also be found ample accommodations for passengers and the enormous travel, the advance-guard of which has only just commenced to arrive. The company designed to extend this pier to Goat Island, directly ahead, as soon as permission is granted by the general Government. When this is done, we may look forward to the early filling in of the portion of the bay between Oakland and the Island, upon which will be located the future great commercial city of the Pacific Coast.

The first ship that loaded at this pier was the "Jennie Eastman," of Bath, England. She commenced loading August 4th, 1870, for Liverpool, with wheat; brought, some from San Joaques Valley, but the greater portion from the end of the California and Oregon Railroad, 230 miles north of San Francisco. When it is understood by the people of the world that the China, Japan, Sandwich Island and Australian steamships can land at this pier, load and unload from and into the cars of the Great Pacific Railroad, and those cars can be taken through to and from the Atlantic and Pacific Ocean without change; that goods in BOND can (as teas and silks are now) be so transported in one fourth the time heretofore occupied, it will then be realized as the GREAT REVOLUTION of the age. Already a number of ships, direct from Liverpool, loaded with iron, have been discharged at this pier. From the landing place of the "Thoroughfare" in San Francisco a rail track leads to the dock of the Pacific mail steamships, and goods are now transferred in that way in bond;

but the time is near when all foreign vessels with goods for "across the continent" will land at this pier. The precautions against fire on this pier, and to put it out, are ample. The two engines which do the "yard work" are provided with force-pump attachments, steam from the locomotive boilers, and supplied with reels of hose and suction pipe so arranged that water can be used from their tanks, or the bay.

To the southwest three-fourths of a mile, the present objective point of this pier is GOAT ISLAND, or "Yerba Buena." It is nearly round, 340 feet altitude, containing 350 acres. Belongs to the government, but is of little value.

BEHOLD !

As we stand at the end of this pier—almost in the middle of San Francisco Bay—and think back only twenty-five years, we are lost in wonder and astonishment. Here are already four cities within a few miles of where we stand; the smallest has near 2,000, while the larger teems with nearly 150,000 inhabitants, representatives from every land and clime on the face of the earth. In 1847, 500 white settlers could not be found in as many hundred miles, and not one ship a year visited this bay. Now there are six large mail steamships in the China trade, eight more in the Pacific mail service to Panama, 20 more regularly engaged on the coast from Sitka, on the north; to South America, Honolulu, Australia, New Zealand, on the south; besides hundreds of ships and steam vessels of every description—all busy—all life. Here, too, at the end of this pier, is the extreme western end of the grand system of American railways, which has sprung into existence within the same twenty-five years. How fast we live. The gentle breeze of to-day was the whirlwind of fifty years ago. *Will we—can we—continue at the same ratio?* But why speculate? It is our business to write what is taking place to-day; so we will now step on board the ferry-boat and take a look at

SAN FRANCISCO.

The city presents a broken appearance, owing to a portion being built on the hills, which attain quite a respectable altitude. From the tops of these hills a very fair view of the city can be obtained.

A large portion of the city is built on land made by filling out into the bay. Where the large warehouses now stand, ships of the heaviest tonnage could ride in safety but a few years ago. To protect this made land, and also to prevent the anchorage from being destroyed, a sea-wall has been built in front of the city.

The principal wharves are on the eastern side of the city, fronting this made land. North Point has some good wharves, but from the business portion the steep grades of the city is a great objection.

On landing at the ferry slip in the city, the first thing required is a good hotel. Now, if there is any one thing that San Francisco is noted for *more* than another, it is

GOOD HOTELS.

The Grand Hotel, Cosmopolitan, Lick, and Occidental are all *first class*, both in fare and price—charges, from 3 to 5 dollars per day. The Brooklyn, Russ, American Exchange, International, Orleans, and many others, are *good* hotels, at charges from \$2 to \$2.50 per day. Then there are a great many cheaper houses, with rooms from 25 to 75 cents per night, with restaurant meals to order.

San Francisco is situated on the north end of the southern peninsula which, with the northern one, separates the waters of San Francisco bay from those of the Pacific Ocean. Between these peninsulas is the GOLDEN GATE, a narrow strait, one mile wide, with a depth of 80 feet, connecting the bay with the ocean.

The *first house* built in San Francisco was in 1835. The place was then called "Yuba Buena," changed to San Francisco in 1847, before the discovery of gold. The city contains by last census 149,482 inhabitants, is well built and regularly laid out north of Market street, which divides the city into two sections; south

of this the streets have an eastern declension as compared with those running north. The city is situated in latitude, 37 deg. 48 sec. north; longitude, 120 deg. 27 min. west.

The climate is unsurpassed by that of any large seaport town in the United States—uniformity and dryness constituting its chief claim to superiority. There is but little rain during the year, only about half that of the Eastern States. The mean temperature is 54 deg., the variation being but 9 deg. during the year.

San Francisco in early days suffered fearfully from fires. The city was almost completely destroyed at six different times during the years of 1849, 50, 51, and 1852. The destruction has been estimated in round numbers to exceed \$26,000,000. The result of these fires has been that nearly all the buildings built since 1852 has been built of brick, stone, or iron—particularly in the business portion. The city has many magnificent private residences, and cozy little *home* cottages, ornamented with evergreens, creeping vines, and beautiful flowers. The yards or grounds are laid out very tastefully with neat gravelled walks, mounds, statues, ponds, and sparkling fountains, where the "crystal waters flow."

The city is amply supplied with schools, both public and private. There is no institution of the city wherein the people take more interest and pride; none, of the credit and honor of which they are more jealous. Some of the finest buildings of the city were built for school purposes, the Denman and Lincoln school houses being the finest of the number.

There are 46 churches—of all kinds, creeds, and beliefs—including several Chinese "Joss Houses." The Jewish synagogue is the finest among them, situated on Sutter street.

The NEWSPAPER, and MAGAZINE, are the histories of the present, and the person who does not read them must be ignorant indeed. Californians are a reading people; and he that comes here to find fools brings his pigs to a very poor

market. There are in the city 60 newspapers, magazines, and periodicals. There are 9 daily papers, the *Alta Californian* being the oldest and meanest. The *Bulletin*, *Morning Call*, *Morning Chronicle*, *Examiner*, *Republican*, *Abend Post* (German), *Demokrat* (German), and *Courrier de San Francisco* (French) are all first-class journals. The *Golden Era* and the *Golden City* are two first-class literary weeklies. Here, too, is the *Overland Monthly* magazine. Then there is the invaluable *Scientific Press* for the miner, and the *Pacific Rural Press* for the farmer. If among all these publications you can find nothing to suit you—*nothing new*—why, then we advise you to read the Bible, and profit by its teachings.

ITEMS TO REMEMBER.

CALIFORNIA IN MINIATURE.—The finest collections of views, and we might say almost the *only* complete one, of the Big Trees, Yo Semite, Geyser Springs, Pacific Railroad, Nevada, Oregon, and the Pacific coast generally, are to be found at Thos. Houseworth & Co.'s, No. 9 Montgomery st., Lick House. Many of the illustrations in the GUIDE were engraved from stereoscopic views taken by this house. We have always avoided "puffing," but we believe we are doing our readers a service in this case. In the east, at Messrs. Anthony & Co.'s, 591 Broadway, New York, will also be found a very fine collection.

THE MARKETS of San Francisco are one of the features of the city; those who never saw the fruit and vegetables of California should visit the markets. No other country can produce fruit in such profusion and perfection. The grapes, peaches, pears, etc., on exhibition in the city markets, represent the best productions of all parts of the State.

THE CALIFORNIA THEATRE, on Bush St., is the largest and most elegant, devoted to legitimate drama.

The ALHAMBRA, on the same street, opera bouffe, burlesque, and minstrelsy.

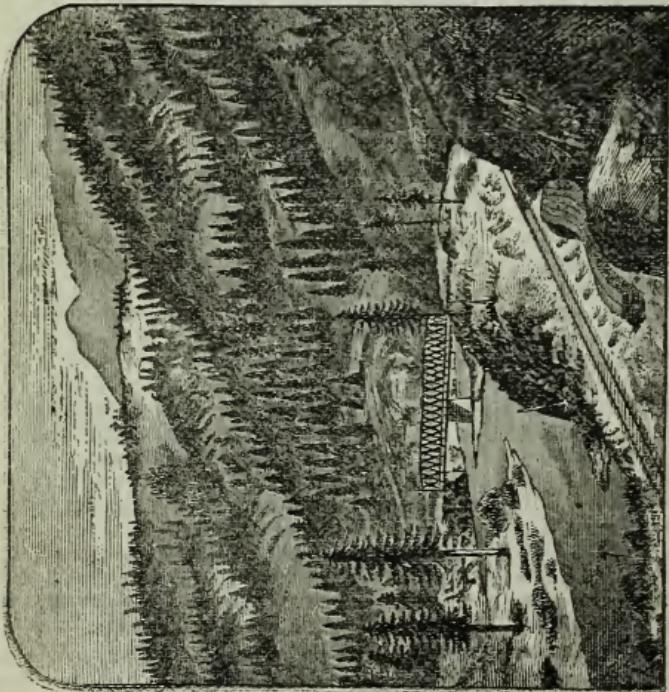
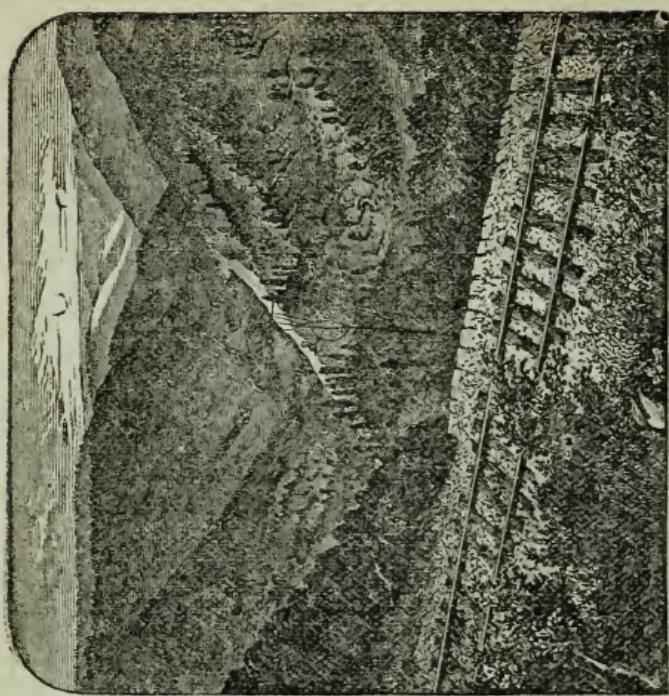
The METROPOLITAN and the OPERA HOUSE, on Washington St., drama and opera.

AMERICAN RIVER, FROM CAPE HORN.—SEE PAGE 176.

A CALIFORNIAN DESERT.

By many it has been held as a theory that the Yuma desert was once an ocean bed. At intervals, pools of salt water have stood for awhile in the midst of the surrounding waste of sand, disappearing only to rise again in the same or other localities. A short time since, one of these saline lakes disappeared, and a party of Indians reported the discovery of a "big ship," left by the receding waves. A party of Americans at once proceeded to the spot, and found, imbedded in the sands, the wreck of a large vessel. Nearly one-third of the forward part of the ship or bark is plainly visible. The stump of the bowsprit remains, and portions of the timbers of the wreck are perfect. The wreck is located forty miles north of the San Bernardino and Fort Yuma road, and thirty miles west of Los Palmos, a well-known watering place on the desert. The road across the desert has been traveled for more than one hundred years. The history of the ill-fated vessel can, of course, never be known; but the discovery of its decaying timbers, in the midst of what has long been a desert, will furnish savans with food for discussion, and may, perhaps, furnish an important aid in the elucidation of questions of science.

TRUCKEE RIVER, NEAR STATE LINE



CHINESE THEATRES, two in number, with all their "tricks that are vain," perform nightly, but few can understand; yet they are worth *one* visit.

The PLAZA, WASHINGTON, UNION, COLUMBIA, LOBOS, HAMILTON, and ALAMO Squares, and YERBA BUENA, BUENA VISTA, and GOLDEN GATE PARKS, are all small, except the last, which contains 1,100 acres, and very little improved. The Oakland and Alameda parks are largely patronized by San Franciscans, who reach them by ferryboat. But what the city is deficient in parks is made up by the

WOODWARD GARDENS.—R. B. Woodward, Esq., a gentleman who possessed both an ample fortune and a refined taste, laid out these gardens in 1860, to surround, adorn, and beautify his private residence, situated near the centre of the grounds. To this end the continents of both America and Europe were searched to procure every variety of ornamental trees, exotics, indigenous plants, or articles of *rare virtu* and *value*. For us to attempt to describe these beautiful grounds and do justice to the subject, were we able, it would take a larger book than the Guide. They must be seen to be appreciated. You will find in the "Art Gallery" rare paintings and statuary, in the "Zoological" department over 30 different kinds of wild animals, including the California lion and a mammoth grizzly bear, weighing 1,600 pounds, also a great variety of California birds.

In these grounds are towering evergreen trees and crystal lakes, oriental arbors and beautiful statuary, delightful nooks and shady retreats, with creeping vines, fragrant flowers, sparkling fountains, sweet music, and, above all, the glorious California sky. Possessed of all these luxuriant surroundings, and with ample income, could any person be surprised that Mr. Woodward should persistently decline to open them to the curious public? But the time came at last. It was when the soldiers and sailors of his country lay bleeding in the hospitals, on the ships, in the camps, and on the battle-fields, with widows, orphans, suffering

and death on every side. The sanitary fund was low. *Money must be had!* Then it was that his noble heart leaped to the rescue. The grounds were thrown open to the public *in aid of the Sanitary Fund*. The receipts were princely; and who can say how many lives were saved, or the sufferings of the last moments of life alleviated, by the aid of the generous proprietor of the Woodward Gardens? These gardens were opened permanently to the public in May, 1866. They occupy 5 acres of ground, 4 of which are bounded by Market, Mission, 13th, and 14th Sts., with one acre to the south of 14th St., connected by tunnel under that street from the main garden.

The CITY GARDENS are N. E. corner Folsom and 12th streets.

The CITY HALL is on Kearny St., opposite the Plaza.

MISSION BAY is two miles south of the City Hall.

HORSE CARS run to nearly all parts of the city. Tickets cost 25 cents, with 4 coupons attached, each coupon good for one fare.

The city south of Market St. towards Mission bay is covered by residences, except portions of Second and Third Sts., which are occupied by retail shopkeepers. These streets are numbered from 1 to 26.

The IRON FOUNDRIES and MACHINE shops are on Howard and Fremont Sts. The heavy WHOLESALE HOUSES are mostly on Front, Battery and Sansom Sts., north from Market.

The main PRINTING OFFICES are on Clay St.

MONTGOMERY STREET is the *Broadway* of San Francisco, though Kearny St. disputes the honor.

CALIFORNIA STREET is the *Wall Street* of the city.

The CHEAP LODGING AND EATING HOUSES are mostly on Sacramento and Commercial Sts.

The POST OFFICE and CUSTOM HOUSE are on Washington St.

MERCHANTS' EXCHANGE BUILDING is on California St.

The STOCK EXCHANGE is in the Merchants' Exchange Building.

The BRANCH MINT of the U. S. will soon occupy the new building N. W. corner Mission and 5th Sts., a very fine building, which will cost, when completed, \$1,250,000. About \$4,000,000 are coined at this mint annually from the gold and silver of the Pacific coast.

WATER for the city use is obtained from Pillarcitos creek, 20 miles south of the city, in San Mateo Co., Lake Honda, 5 miles south, being used as a reservoir. Yet wells are numerous, the water being elevated by windmills.

The LIBRARIES are numerous. The Mercantile, on Bush St., the Odd Fellows, on Montgomery, the Mechanics' Institute, on Post St., the What Cheer, at the "What Cheer House," and the Young Men's Christian Association, are the principal ones, open *free* to tourists upon application.

The MECHANICS' PAVILION fronts on Geary St., covers one block of ground. The Mechanics' Institute own the building, and hold their fairs there.

The DRY DOCK at Hunter's Point, 6 miles southeast, is 465 feet long, 125 feet wide, and 40 feet deep, cut in solid rock, at a cost of \$1,200,000.

PROTRERO SHIP YARDS are located at Protrero, and are reached by the city cars. All kinds of small craft for the coast service are built at these yards.

CHINA TOWN is situated on Sacramento, above Kearny, Dupont, between Sacramento and Washington Sts., and Jackson St., between Dupont and Kearny. These streets are occupied exclusively by Celestial shopkeepers, "Heathen Chinee."

The BARBARY COAST, a noted resort for thieves, cut-throats, and the vilest of the vile, is situated on Pacific St., between Kearny and Dupont Sts. We give the precise locality so that our readers may *keep away*. Give it a "wide berth," as you value your life.

ANGEL ISLAND, 3 miles north of the city, is $1\frac{1}{2}$ miles long, $\frac{1}{4}$ of a mile wide. Altitude, 771 feet. On this island are quarries of brown and blue stone, which are extensively used in the city for building purposes.

GOAT ISLAND, or "Yerba Buena," $2\frac{1}{4}$ miles east, nearly round, containing 350 acres. Altitude, 340 feet.

ALCATRAZ ISLAND is $1\frac{1}{4}$ miles north, strongly fortified. The summit is 140 feet above tide, surrounded by a belt of batteries, which command the entrance to the harbor—a "key to the position." These islands are all owned by the government.

SECRET ORDERS are numerous in San Francisco—too numerous to note here.

POINT LOBOSE is 6 miles west.

FORT POINT is north of west from the City Hall, 5 miles at the south end of Golden Gate. It is the most heavily fortified on the coast—on the plan of Fort Sumter, in South Carolina.

TELEGRAPH HILL, to the north, is 394 feet high.

RUSSIAN HILL is 360 feet high.

CLAY ST. HILL is 376 feet high.

The TWIN PEAKS, 4 miles southwest, rise 1,200 feet. The visitor can obtain from the summit of these peaks a fine view of the whole country, for many miles around—the Golden Gate, and the great Pacific Ocean.

FERRY-BOATS run regularly between San Francisco and Oakland, Alameda, Sausalito, San Quentin, &c., &c.

RAIL CARS via San Jose to Gilroy, 80 miles.

The Southern Pacific Railroad Co. have issued \$28,000,000 first mortgage 6 per cent. *gold* bonds, to extend their road through Monterey, Fresno, Tugare, Kern, San Bernardino, and San Diego counties to the Colorado River, 750 miles from San Francisco, and it is designed to complete the road as soon as possible.

STEAMERS leave regularly for Vallejo, 28 miles; Benicia, 30; Petaluma, 48; Santa Cruz, 76; Monterey, 100; Stockton, 110; Sacramento, 125; San Luis Obispo, 209; Eureka, 233; Crescent City, 280; Santa Barbary, 280; San Pedro, 364; San Diego, 456; Portland, 642; Victoria, V. I., 753; Mazatlan, 1,480; Guaymas, 1,710; La Paz, 1,802; Acapulco, 1,808; Sitka, 1,951; Honolulu, 2,090; Panama, 3,230; Yokohama, 4,764; Hiogo, 5,104; Auckland, 5,907; Shang-

hae, 5,964; Hong Kong, 6,284; Sidney, Australia, 7,183; Melbourne, 7,700 miles each. For further particulars

See TRANS-CONTINENTAL TIME TABLE in the front of the Guide.

Look! here we are on the golden shores of California. We have come with the traveler from the *far* east to the *far* west; from the Atlantic to the Pacific—from where the sun *rises out* of the waters, and *sets* in the waters, covering an extent of country hundreds of miles in width, and recording a telegram of the most important places and objects of interest—*brief, necessarily, but to the point*—and we feel certain a pardon would be granted by the reader if we now said

GOOD-BY.

But how can we? The theme is *so exhaustless!* We cannot quit—not until we have made one *trip* at least. So let us procure a carriage and take a “swing around the circle.” First, to the

SEAL ROCKS,

Six miles west. Horse-cars run out $2\frac{1}{2}$ miles, connecting with a regular omnibus line the balance of the way. Early in the morning is the best time to start, as the coast breeze commences about eleven o'clock, after which it will not be so pleasant. We will be fashionable, get up early, and drive out to the “Cliff House” for breakfast.

Within the first $2\frac{1}{2}$ miles we pass a number of cemeteries; some of them contain beautiful monuments, and are very tastefully ornamented. The principal ones are the Lone Mountain, Laurel Hill, and Odd Fellows. In the Lone Mountain cemetery, on our right, under that tall and most conspicuous monument, which can be seen for many miles away, rests the remains of the lamented Senator Broderick, who fell a victim of the “Code Duello” through jealousy and political strife. Near by is the monuments of Starr King, Baker, and many others, whose lives and services have done honor to the State. On the summit of Lone Mountain, to the left, stands a large cross—which is a noted land mark, and can be seen from far out to sea.

In a little valley, close to the road, we pass on the right, surrounded by a high fence, one of the most noted RACE-COURSES in the State.

From the city the road leads over a succession of sand hills; from the summit of some of these we catch an occasional glimpse of the *big drink* in the distance, the view seeming to *improve* as we gain the summit of each, until the *last* one is reached, when there, almost at our feet, stretching away farther than the eye can penetrate, lies the great Pacific Ocean, in all its mysterious majesty. Look! we will be sure to see numerous ships, small craft and steamers, the latter marked by a long black trail of smoke. They are a portion of the world's great merchant marine, which navigate these mighty waters, going and coming, night and day, laden with the treasure, and the productions and representatives of every nation, land and clime.

Close on our right is the Golden Gate, with the bold dark bluffs of the northern peninsula beyond. The “Gate” is *open*, an invitation to all nations to enter—but beside them are the “Boys in Blue,” with ample fortifications, surmounted by the “Bull Dogs” of “Uncle Sam,” standing ready to close them at the first signal of danger.

Our descent from the summit of the last hill *seems* rapid, as we are almost lost in admiration of the magnificence spread out before us, until we arrive at the “Cliff House.”

The stranger on the *road*, and at the Cliff House, would think it was a *gala day*—something unusual. Such grand “turn-outs,” and so many. Fact is, this “DRIVE” is to the San Franciscan what the “Central Park” is to the New Yorker—the “style” of the former is *not* to be outdone by the latter. The drive out is always a cool one, and the *first* thing usually done on arriving is to take a drink of—water, and *then*, order breakfast, and such nice little private breakfast rooms, and so many of them! Oh, these Californians know *how* to do the thing! They do nothing by halves.

Hark! “*Yoi-Hoi, Yoi-Hoi, Yoi.*” What

the deuce is that? *Those hearing us smile.* We do not ask, but conclude it must be a big herd of healthy donkeys passing, when two gentlemen enter from the rear, and one of them says, "Colonel (*there is no lower grade in California*), I will bet you 50 shares in the Gould & Curry or Red Jacket that General Grant, that big seal on the top of the rock, will weigh 3,000 pounds." We did not stop to hear more, but rushed out the back door on to a long veranda running the whole length of the house, which is situated on a projecting cliff, 200 feet above, and almost overhanging the waters, when "*Yoi-Hoi, Yoi-Hoi, Yoi*"—and there was *our* donkeys, 500 yards away, laying on, scrambling up, plunging off, fighting, and sporting around three little rocky islands. The largest of these islands is called "Santo Domingo." It is quite steep—few can climb it. A sleek, dark-looking seal, which they call "Sumner," once tried it, but fell off. Away up on the very top—basking in the sun, with an occasional "*Yoi-hoi, boyi*"—lies General Graut, the *biggest whopper* of them all. We knew him at the first sight. He had something in his mouth, and looked *wise*. Often when the din of his fellow seals below become fearful, who are ever quarreling in their efforts to climb up, his "*Yoi-hoi, Boyi*" can be heard above them all—which, in seal language, means, "*Let us have peace.*" Sea fowls in large numbers are hovering on and around these rocks. They too are very chattering, but we have no time to learn their language, as here comes a steamer bound for China. [See Illustration.] It steams in close to the islands, and we think we can discern among the passengers Mr. G. F. T., on a trip "around the world," waving his compliments to the General on the top of the rock. Breakfast is called—being fashionable, we take another drink of—water; and while eating a hearty meal, learn that these seals are protected by the laws of the State against capture. Then pay our bill, and the ostler *his detainer*, take our seat, and whirl around over a broad winding road, which is

blasted out of the rocky bluff on our left, to the sandy beach below.

Right here we meet Old Pacific himself—face to face—near enough to "shake." He is a good fellow when he is himself—*pacific*—but he drinks a great deal, perhaps too much; but certain it is he gets very noisy at times—very turbulent. In driving along the beach, we come to one of the evidences of his fearful wrath. Look! do you see that ship laying on her side?

One night, after a big carousal, when it was said Old Pacific had been drinking a great deal—more than usual—and was in a *towering passion*, he drove this ship up *almost high and dry* on the beach, where you see her. Not content with that, chased the escaping occupants far into the sand hills, throwing spars, masts, and rigging after them.

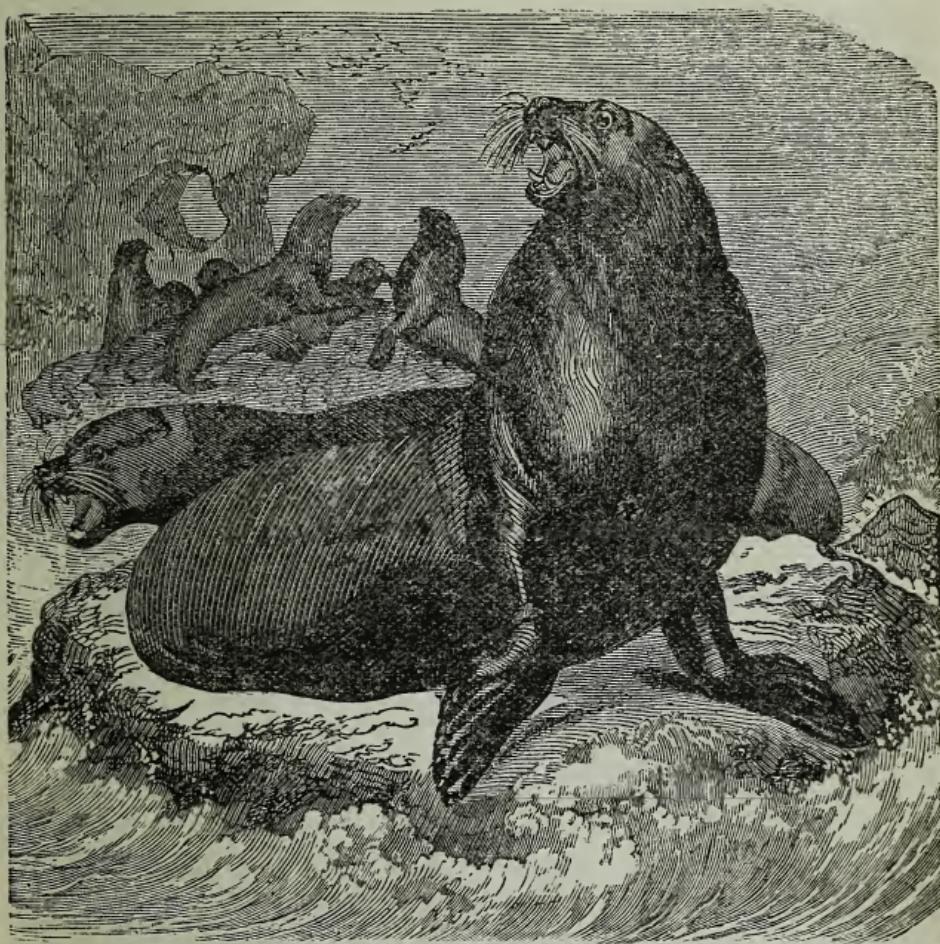
We don't want any of that in ours. No, thank-ee—"None for Joe."

We will keep our eye on Old Pacific, and drive along down the beach, by several fine hotels, and then turn into the hills to the left, passing over a high point, where some fine views can be had of the surrounding country, and around to the old

MISSION DOLORES.

Here is food for the curious. But we cannot afford to stop here long, as old Boreas is getting waked up, and is sliding the sand over the bluffs after us rather disagreeable. This mission was founded in 1775, by Spanish missionaries, who for over 60 years wielded a mighty influence among the native Californians (Indians). In its most prosperous days the Mission possessed 76,000 head of stock cattle, 2,920 horses, 820 mules, 79,000 sheep, 2,000 hogs, 456 yoke of work oxen, 180,000 bushels of wheat and barley, besides \$75,000 worth of merchandise and hard cash.

The greater portion of all this wealth was confiscated by the Mexican government, so that when California became a portion of the United States little remained except these old adobe walls and grounds, together with about 600 vol-



SEALS, OR SEA-LIONS.

umes of old Spanish books, manuscripts, and records.

Returning to the city, we pass many objects of interest well worthy of notice, but we cannot attend to them. Just come and see how it is yourself.

NOTES AT LARGE.

CALIFORNIA was first discovered in 1542, by a Portuguese, Juan R. Cabrillo, while in the Spanish service. It was

held by the Spanish, then by the Mexican governments, until 1848, when by treaty it became a portion of the United States. It was admitted as a State in 1850. It covers an area of 160,000 square miles, divided about equally into mining, agricultural, timber, and grazing lands. All kinds of grain, fruit, and vegetables, grow in profusion. The grape culture has occupied the attention of many of her people, who find that they can produce

wine surpassed by none in this country, and few in the old. Large quantities are used throughout the United States, with a yearly increased shipment to European markets. Her manufactures are of a high order, and attract favorable notice at home and abroad. The spirit of enterprise manifested by her citizens has deserved and won success. Under the liberal, far-seeing policy of the younger class of capitalists and merchants, who appeared about the time of the inauguration of the great railroad, a new order of things arose. Men began to regard this land as their future home, who, before this era, cared to stay here no longer than while they obtained a fortune, which they expected to get within a few months at farthest.

From this time, money expanded, trade, agriculture, mining and manufactures began to assume their proper stations. The old, narrow, ruinous no-policy which marked the era of the old capitalist, passed away, and a brighter, better era opened to the people of the Pacific slope.

The BANK OF CALIFORNIA is one of those *live institutions*, with a capital of \$5,000,000 gold. We gave its history in a former volume. We can only add—the managers know their business, and do nothing by halves. The bank has branches all over the State, and in Oregon and Nevada.

The STATE AGRICULTURAL SOCIETY hold annual fairs in September. They are largely attended—visitors and exhibitors coming from all parts of the State, Nevada, and Oregon.

The MECHANICS' INSTITUTE hold annual fairs.

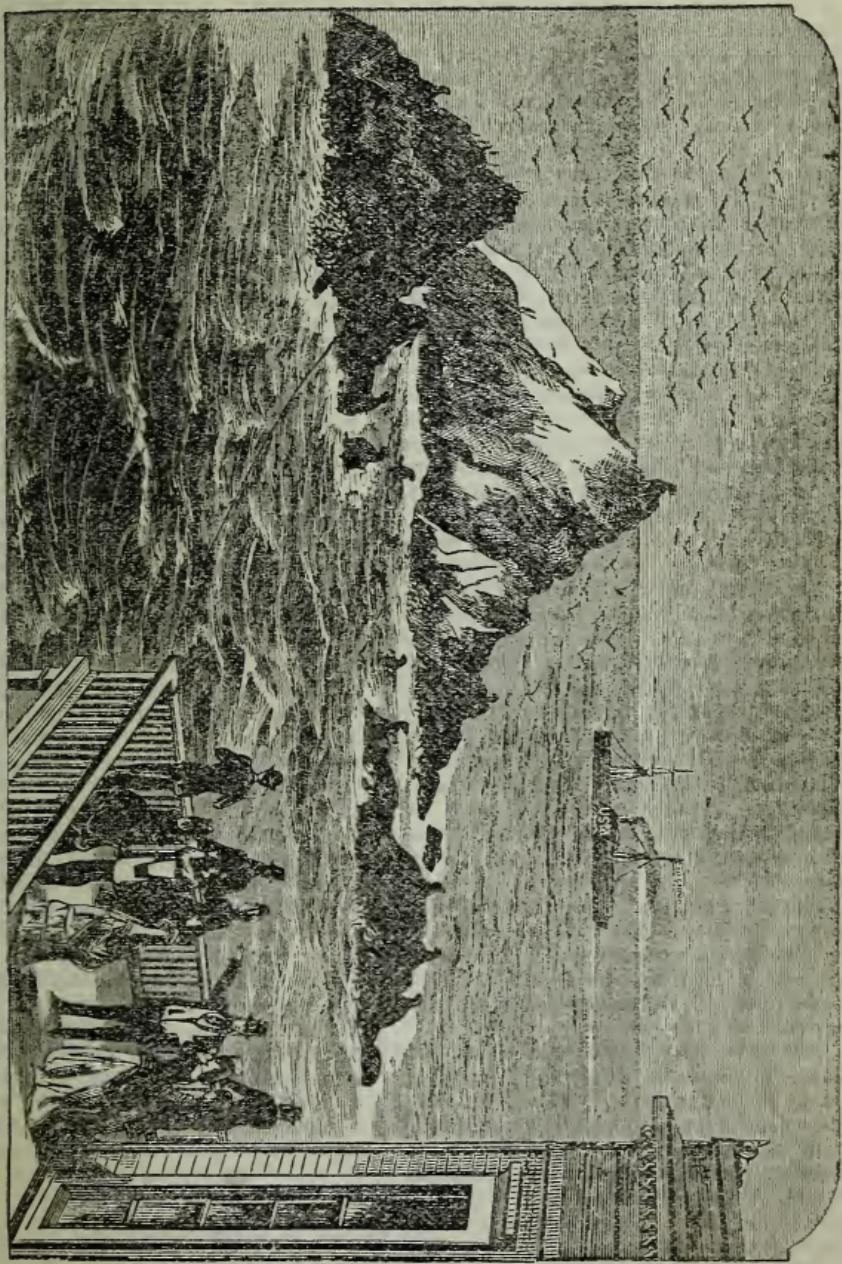
The SEERRA NEVADA MOUNTAINS are about 500 miles long, and from 60 to 100 miles in width, their general direction northwest and southeast. The height of the principal peaks are—Mts. Whitney, 15,088 feet; Williams, 14,500; Shasta, 14,444; Tyndall, 14,386; Raweah, 14,000; Gardner, 14,000; King, 14,000; Brewer, 13,886; Dana, 13,227; Lyell, 13,217; Castle Peak, 13,000; Cathedral Peak, 11,000; Lassen's, 10,577 feet.

The COAST RANGE is the range of mountains nearest the Pacific Ocean, extending the whole length of the State, broken at intervals with numerous small rivers and narrow fertile valleys. The principal peaks are—Mts. Ballery, 6,357 feet high; Pierce, 6,000; Hamilton, 4,450; Diablo, 3,876; Banch, 3,790; Chonal, 3,530; St. Helena, 3,700; Tamalpais, 2,604 feet. Mount St. Bernardino, away to the southward, in the range of that name, is 8,370 feet in height.

The RAINY SEASON is between the first of November and the first of May, the rain falling principally in the night, while the days are mostly clear and pleasant. At Christmas the whole country is covered with green grass, in January with a carpet of flowers, and in April and May with ripening fields of grain. During 15 years of observation the average has been 220 clear, 85 cloudy, and 60 rainy days, each year. The nights are cool the year round, requiring a coverlid during the hottest and dryest season.

FARALLONES ISLANDS are seven in number, 30 miles west of Golden Gate, in the Pacific ocean, totally barren of everything but seal, sea-lions, and water-fowls. These are *very numerous*. Many of the seals will weigh from 2,000 to 4,000 lbs. and are quite tame. They are protected from capture by State laws; but the poor birds—and they are legion—which inhabit these islands, laying millions of eggs every year, are robbed with impunity. Most of the eggs in the markets of San Francisco are brought from these islands. The islands are all rocks; the highest peak is surmounted with a light-house of the first order, 340 feet above the water.

SAN QUENTIN is a noted place of summer and winter resort. The resident tourists number from 600 to 1,000, their term of residence varying from six months to a lifetime. The quarters for their accommodation are furnished by the State, free of charge. The Lieutenant-Governor exercises personal supervision over the guests, assisted by many subordinates and a company of soldiers.



SEAL ROCK, FROM THE CLIFF HOUSE.—DESCRIPTION, PAGE 215.

The guests come here, not of their own will, but through their folly, and we believe they would quit the place, if they could. By law it is known as the State Prison. Route, by ferry, 12 miles north.

SAN RAFAEL, the county-seat of Marin county. Population, about 800. It was settled in 1817 by the Jesuitical missionaries. It is situated in a beautiful little valley, and of late has become a thriving suburban town. The *Journal* and *News*, both weekly papers, are published here. Connected with San Quentin by railroad—distance, 3 miles east.

Mt. TAMALPAIS.—Route, by ferry to San Quentin, 12 miles north of San Francisco, 3 miles by railroad to San Rafael, saddle horses for the remainder of the journey, 12 miles to the summit, which is 2,604 feet high.

NAPA CITY is the county-seat of Napa county, situated in Napa Valley, on Napa River, and the Napa Valley Railroad, with the NAPA SODA SPRINGS, 6 miles to the east. Yet the Napa's seldom *Nap*, but often "*Nip*." It is a lively town of about 3,500 inhabitants, at the head of tide-water navigation, sporting two weekly newspapers, the *Register* and *Reporter*, and in the midst of a country noted for its mild and genial climate, the great fertility of its soil, and its many well-cultivated vineyards, producing annually over 200,000 gallons of wine and brandy.

The water from these springs has become quite celebrated; a large amount of it is bottled annually, and shipped to all parts of the State. Route, steamer to Vallejo, 28 miles, and 16 more by railroad.

SONOMA.—This town is a quiet old place, founded in 1820, and contains about 600 inhabitants. Many of the old original adobe buildings are still standing, in a good state of preservation. Sonoma has the honor of being the place where the old "Bear Flag" was first raised. It is connected by stage with Napa, distance 12 miles.

CALISTOGA is the most popular of all the summer resorts near the bay. The

springs to be found here possess great medicinal qualities, and have already won a high local reputation. In the town, every accommodation in the way of hotels, etc., is afforded to the numerous visitors who annually gather here to bathe in, and drink the invigorating water, enjoy the unsurpassed hunting and fishing in the vicinity, and above all, to breathe the pure air of the charming little valley, while viewing the beautiful mountain scenery. Route, steamer to Vallejo 28 miles, Napa Valley Railroad, 43 miles more.

THE GEYSERS are 25 miles distant from Calistoga by stage. These springs, with their taste, smell and noise, are *fearful!* WONDERFUL! We have been told that the productions of California "beats the Devil," but we feel certain he has not left the country; and is *not far* from this place. Here are over 200 mineral springs, the waters of which are hot, cold, sweet, sour, iron, soda, alum, sulphur—well, you *should* be suited with the varieties of sulphur! There is white sulphur and black sulphur, yellow sulphur and red sulphur, and how many more deponent saith not. But *if* there are any other kinds wanted, and they are not to be seen, call for them, *they are there*, together with all kinds of contending elements, *roaring, thundering, hissing, bubbling, spurting and steaming*, with a smell that would disgust any Chinese dinner party. We are unable to describe all these wonderful things. Go and see how it is yourself—but first, have Schreiber insure your life in the Pacific Mutual for the family that you *ought* to have, if you havn't.

PETALUMA is the largest town in Sonoma county. It is situated on Petaluma creek, at the head of navigation. Population, 4,500. It is the shipping point for the grain raised in the adjoining country. The *Crescent*, daily and weekly, and the *Journal* and *Argus*, weekly, are newspapers published here. The California Pacific R. R. Co. are building a branch road, which will pass through the town to Santa Rosa, Healdsburg and Bloomfield, from Vallejo. The

route now is via steamer from San Francisco, 48 miles.

SANTA ROSA, the county-seat of Sonoma county, is situated in the midst of a very rich agricultural region. Population 1,500. It is 16 miles from Petaluma, 16 from Healdsburg, with both of which it will soon be connected by rail, as above alluded to. The *Democrat*, a weekly paper, is published here. The leading industry of the county is wheat, the yield for 1869 was 2,120,213 bushels, the second largest in the State. The same year the number of grape-vines cultivated was 4,112,279, producing over 350,000 gallons of wine and brandy—the largest in the State except Los Angeles county.

HEALDSBURGH, a beautiful little town of about 1,500 inhabitants, is situated on the Russian River, 16 miles northwest from Santa Rosa, and 20 miles from the ocean. Russian Valley, in which the town is located, is noted for its great yield of wheat, and the extraordinary quickness of its soil, producing potatoes, peas, and many other vegetables within sixty-five days from the time the seed is planted. The *Russian River Flag*, a live weekly paper, is published here. The tourists will find excellent hunting and fishing near by, with ample hotel accommodations.

EUREKA is a port of entry, situated in Humboldt county, on the east side of Humboldt bay, and is the principal shipping point for the lumber and timber from the extensive forests of redwood, which this county is noted for. A large amount of redwood lumber is shipped annually from Eureka to foreign as well as home ports. The *Northern Enterprise* and the *Times*, both weekly newspapers, are published here. The Humboldt land office is also located here, with our genial friend Gardner, from Yolo, as register. Population 2,500. Route: steamer from San Francisco, 233 miles, north; also by stage from Petaluma.

LOS ANGELES is the county seat of Los Angeles county, in southern California. Settled in 1781. Present population 7,000. Has two daily and three weekly

newspapers—the *News*, daily and weekly; the *Star*, daily and weekly; and the *Republican*, weekly. It is the headquarters for the U. S. southern district of the Pacific, and contains the principal military barracks and storehouses.

The county produced in 1869 more corn than any other county in the State, 281,500 bushels. The same year it returned 90,000 bushels castor-beans, 3,000 lemon and 25,000 orange trees, 12,000 horses, nearly 40,000 cattle, 209,000 sheep, and 1,197,000 gallons of wine and brandy.

It is situated on the Los Angeles river, 23 miles from the port of San Pedro; but the principal shipping point is at Wilmington, a few miles above San Pedro, at the head of the bay, with which it is connected by railroad 18 miles distant. Regular steamers touch at San Pedro for San Francisco, 364 miles; San Diego, 82 miles by water, 131 miles by stage. Los Angeles is also connected by stage with all the interior towns, and with Gilroy, 366 miles; from thence by rail to San Francisco, 80 miles.

SAN DIEGO was first settled by the Jesuit missionaries in 1769, and is the oldest town in the State. It is a port of entry, county seat of San Diego county. Population at present about 4,000, but rapidly increasing. It is situated on San Diego bay, which, for its size, is the most sheltered, secure and finest harbor in the world. The bay is 12 miles long and 2 miles wide, with never less than 30 feet of water at low tide, and a good sandy bottom. By act of Congress, it is to be the western terminus of the Southern Pacific Railroad, and will from this time undoubtedly make rapid progress. It is connected by steamer with San Francisco, 456 miles north, and by stage to all inland towns. A stage line runs to Tucson, 475 miles; Santa Fe, New Mexico, 1,075 miles. It is 14 miles north of the dividing line between Upper and Lower California, and is destined to make a city of great importance. Tropical fruit of every variety is produced in the county, and the climate is one of the finest in the world, the thermometer never falling below 40 in the winter, or

rising above 80 in the summer. The country is well timbered, and well watered, producing large crops of all kinds of grain, fruit, and vegetables. Gold, silver and tin ores have been recently discovered, which promise at this time to be very extensive and profitable. Several quartz mills have recently been erected. Two weekly papers are published at San Diego, the *Bulletin* and the *Union*.

The Central Pacific R. R. Co. had a DRAWING ROOM SLEEPING CAR, which, for fine workmanship and elegant appointments, eclipsed anything of

the kind ever before constructed. It was built entirely of California and Oregon timber, and beautifully inlaid with portions of each of the different kinds of wood grown on the Pacific slope. The car was supplied with all the modern improvements and conveniences throughout, and a car that Californians were justly proud of. Cost, over \$50,000. While this magnificent car was en route to New York, it chanced to be in Chicago just at the time of the great conflagration in that city in the fall of 1871, and was destroyed.



IN CONCLUSION.

THE Union & Central Pacific Railroad is the longest in the world, laid the most miles of track in one day, cost the most money, passes over the broadest plains, the finest grazing lands, and the loftiest mountains, near barren deserts and the most fertile valleys. It possesses the most valuable lands, the highest bridges, the longest snow galleries, and the most numerous tunnels. It affords views of scenery the most grand. The mountains are towering and snow-capped; the chasms are deep and fearful; while the engineering skill displayed is truly wonderful. Near this road are the richest gold, silver, iron, coal, sulphur and other mines in the world. The line rises the highest into the clouds and terminates the farthest from land, over the waters, on the longest pier. It possesses the most rolling stock, and the most beautiful, costly and luxuriant drawing-room sleeping car. On the line of the road the wild game, of nearly every variety, are abundant, "like the sands on the seashore," from the chicken and prairie-dog to the buffalo and mammoth "grizzly" of over 2,000 pounds, while above them all, kind of overseer, floats the grand old American eagle himself. The fish are numerous, and most delicious.

The white *actual* settlers in the country venture to rashness, are hospitable to a fault, and sanguine even in the "cap" after the "grub" fails to "pan," while their word of honor is always worth more than their bond. But the Indians—they are lazy, filthy, and too mean for fish-bait.

One would suppose by the name "Trans-Continental," that this road was built across the continent. IT IS. Yet the cars run around "CAPE HORN" and the Dead Sea, down the *Bitter* and over the *Green* and *Black* waters, echoing near the "Devil's Slide" and the great "Sink" of the Desert; descends into total darkness, with jets of boiling *sulphur* on either hand, and finally *through* the DEVIL'S GATE, but *always landing safely at the GOLDEN GATE*. Will it be so with us in life? Let us *hope*, and we *may* meet again.

We now take pleasure in referring our readers to

CROFUTT'S NEW MAP

OF THE



ROUTE AROUND THE WORLD.

To be found on a following page.

Memoranda.

W.M.
M.W.



